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GRIM FANDANGO

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DEVELOPERS REVEAL HOW THEY COAXED MINOR MIRACLES OUT OF THE LEGENDARY MICRO

IN THE CHAIR: TOMONOBU ITAGAKI

HOW BOOZING AND HISTORY LED TO DOA AND NINJA GAIDEN

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NAOKI HORII ON CRAFTING M2'S ACCLAIMED DEBUT

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THE RETROBATES

WHAT'S THE MOST TECHNICALLY IMPRESSIVE SPECTRUM GAME?

DARRAN JONES

Bob Pape's *R-Type* is a masterclass in Spectrum code. His book about his time making games is an equally fascinating read.
Expertise: Juggling a gorgeous wife, two beautiful girls and an award-winning magazine, all under one roof!
Currently playing: *BioShock Remastered*
Favourite game of all time: *OutRun 2006: Coast 2 Coast*

TIM EMPEY

I originally played it on the Commodore 64, so it was vastly superior on that, but the Speccy version of *The Trap Door* looks pretty damn impressive too.
Expertise: Finishing Game Pass games before they go
Currently playing: *Atomfall*
Favourite game of all time: *God Hand*

NICK THORPE

I didn't see *Chase HQ* until years after it was released, but it really did impress me – the Speccy was punching way above its weight in adapting the arcade game so well.
Expertise: Owning five Master Systems and a Mark III
Currently playing: *Crackdown*
Favourite game of all time: *Sonic The Hedgehog*

ANDY SALTER

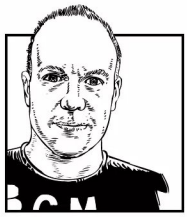
The only spectrum game I consistently played was Ocean's *Narc*. At the time it really did feel like an actual arcade game, which other spectrum games I'd experienced did not.
Expertise: Modding games, no 'vanilla' versions for me, thanks!
Currently modding: *RTR: Imperium Surrectum*
Favourite game of all time: *Rome: Total War* although I guess it's the *Remastered* edition now

RORY MILNE

There are so many, but Dominic Robinson's *Zynaps* is up there. It did smooth full-colour scrolling despite the Spectrum's limits, and it's a great shooter.
Expertise: The game that I'm writing about at the time of writing
Currently playing: *Doom*
Favourite game of all time: *Tempest*

DAVID CROOKES

Mike Singleton's *The Lords Of Midnight* isn't called an epic for nothing. The game itself may not be to everyone's taste but its scaled graphics and viewpoint were astoundingly immersive for the time.
Expertise: Amstrad, Lynx, adventures, *Dizzy* and Sony's PlayStation 2 (but is it actually retro? Debate!)
Currently playing: *750cc Grand Prix*
Favourite game of all time: *Broken Sword: Shadow Of The Templars*



GRAEME MASON

I'm going to pick two: as a space shoot-'em-up fan, I was astounded by *Starstrike II*'s shaded wireframe graphics and the moody atmosphere of Pete Cooke's *Tau Ceti*.
Expertise: Adjusting the tape azimuth with a screwdriver
Currently playing: *Atomfall*
Favourite game of all time: *Resident Evil 4*

ANDREW FISHER

Horace & The Robots – Steve Snake's superb Speccy take on *Berzerk*, complete with some great speech.
Expertise: Forty years of gaming, from Commodore 64 to Switch
Currently playing: *Trick Truck*
Favourite game of all time: *Wizball*

PAUL ROSE

Most technically impressive Speccy game… I'm going to say *Knight Lore*, because those graphics still impress 40 years on.
Expertise: Winging it
Currently playing: *STALKER 2: Heart Of Chornobyl*
Favourite game of all time: *Half-Life 2*

LOADING...

Sinclair's ZX Spectrum is perfect proof that nothing is impossible if you have the knowledge and creative know-how to unlock a system's potential. While the machine is often criticised for its colour clash and limited colour palette, there were plenty of skilled developers who weren't hindered by the machine's apparent limitations. This month sees us talking to a number of those clever creatives who turned restrictions into triumphs and created some of the most jaw-dropping games to appear on the acclaimed 8-bit micro.

Elsewhere in this issue you'll discover the many great games of Denton Designs (another developer that could make the Spectrum sing) discover how a love of history defined the combative games of Team Ninja's Tomonobu Itagaki and how Tim Schafer and his team created the celebrated *Grim Fandango*. We also speak to Naoki Horii about M2's debut Mega Drive game *Gauntlet IV*, revisit the Mode 7 brilliance of *Super Mario Kart*, discover how *FX Fighter* jumped from the SNES to the PC, chat to Les Ellis about his impressive career in magazines, and learn about the origins of *SubWar 2050*.

Stay safe and enjoy the magazine.

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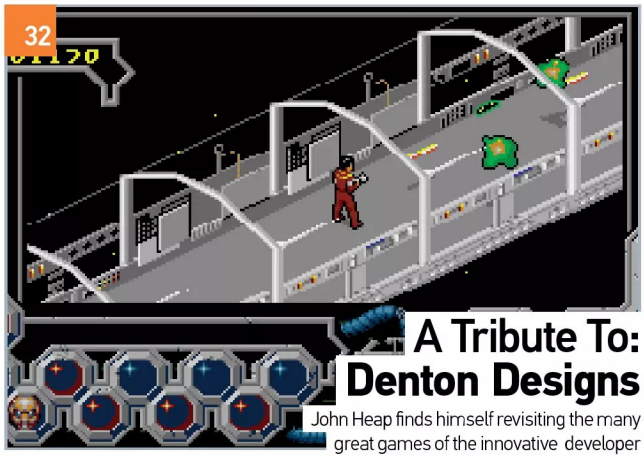
Gaming veterans explain how they pushed the popular 8-bit micro to its technical limits



A Tribute To: Denton Designs
John Heap finds himself revisiting the many great games of the innovative developer

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Ultimate Guide: Super Mario Kart

With *Mario Kart World* just around the corner, Nick took the original SNES classic for a few laps

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» [Switch 2] We'd imagine most Switch 2 adopters will nab the version that includes *Mario Kart World* for £425.99, as £74.99 to own it is rather pricey.

DIRECTLY RETRO

The latest online shows from Nintendo and Blaze were full of retro goodness

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Darran takes a look at the Nintendo and Evercade goodness heading your way

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Split Fiction has been taking up most of Iain's spare time this month and he's really enjoyed it

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Paul loves new Nintendo hardware, but for some reason, the incoming Switch 2 launch isn't really exciting him

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Evanescence's Amy Lee on retro games and creating a new song for Netflix's *Devil May Cry* anime series

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There's Christmas cheer all around, but Nick is too busy crossing the time streams to notice

Evercade and Nintendo fans have plenty to be excited about in the coming months, thanks to great online shows from the two companies. Blaze Entertainment's third Evercade Showcase featured a number of things, some predictable, others less so. As is now becoming the norm, two new Super Pockets were announced, one featuring 18 arcade games from Data East, the other featuring 14 Neo Geo arcade games. Surprisingly, there wasn't a reveal of a Neo Geo-themed Alpha, but we're guessing there's still time to announce one. Both Super Pockets will be available later in the year and will cost £49.99 and will be fully compatible with the entire Evercade cartridge range.

In terms of cartridges, the pickings were slim but good all the same. The biggest surprise was the announcement of *SNK Arcade 1*, something we cynically weren't expecting due to so many games from the bigger Japanese publishers appearing on the Super Pocket range. Due for release in July, six games will be included: *Metal Slug*, *The King Of Fighters 2000*, *Shock Troopers*, *Sengoku*, *Magician Lord* and *Iron Clad*. It's a solid mix of titles, although six games does feel a little miserly (ten feels like a good sweet spot for most of these carts nowadays). Still, it's great to see another Japanese publisher onboard the cartridge train, so hopefully others will follow suit.

» [Switch 2] *Donkey Kong: Bananza* is giving off big *Super Mario Odyssey* vibes and we can't wait to play it.

Windjammers, *Karnov And Friends* is the second arcade cartridge to be announced, but does feel a little underwhelming as it only feature five titles: *Windjammers*, *Karnov*, *Atomic Runner Chelnov*, *Rohga: Armor Force* and *Vapor Trail: Hyper Offence Formation*. The final new cartridge announcement was a Giga Cart release. *Gremlin Collection 2* features *Loaded*, *Re-Loaded*, *Buggy* and *Hogs Of War* and looks like it should offer decent value for money, even at the higher price point of £24.99.

> "Mario Kart World is a launch game and looks like an excellent continuation of the series"

Both the Gremlin cartridge and the *Windjammers* cartridge will debut in June.

June is also gearing up to be a huge month for Nintendo, as the Switch 2 will finally be launching. Priced at £395.99 and with games hitting as much as £75, the Switch 2 will feature a bigger HDR-capable LCD screen than its predecessor, the ability to output 4K when docked and new Joy-

» We weren't expecting any Neo Geo cartridges, so kudos to Blaze for making it happen.

Cons that can also be used as a substitute mouse. The brand-new C button will allow people to chat with friends (although you need a paid subscription) and the system features a built-in microphone.

It's the games that really matter though, and there are some crackers on the way. *Mario Kart World* is a launch game and looks excellent. Races will now cater for 24 players, changeable weather will affect gameplay and it features a new free-roaming mode as well. The racing theme continues with *Kirby Air Riders*, a sequel to the divisive GameCube game that will launch later this year. While we're on the subject of GameCube, it's heading to the Switch Online service on launch day and will include the likes of *The Legend Of Zelda: The Wind Waker*, *F-Zero GX* and *Soulcalibur II*, with more games being added in later months.

There's a new *Donkey Kong* game arriving in July and it's looking like it's going to be great fun. *Donkey Kong: Bananza* appears to greatly expand on the concepts found in the *Donkey Kong Country Returns* series, while the newly designed Kong also looks great, with more expression than we've ever seen in previous games. Although there's no new *Mario* or *Zelda* game, *Hyrule Warriors: Age Of Imprisonment* is on the way and looks like another solid entry in the series that began life on the Wii U.

» [Switch 2] As we expected, *Metroid Prime 4: Beyond* will appear on both the Switch and Switch 2.

» [Evercade] Blaze's *Karnov* cartridge was definitely the weakest entry, but it still has some decent games on it.

» [Switch 2] We adored *Kirby And The Forgotten Land*, hopefully the new add-on will greatly expand the original adventure.

As we expected, *Metroid Prime 4: Beyond* will also be launching on the Switch 2 alongside the Switch version and it will be part of Nintendo's new Switch 2: Edition range. So far a selection of games have been announced, including *The Legend Of Zelda: Breath Of The Wild* and *Tears Of The Kingdom*, *Kirby And The Forgotten Land* and *Super Mario Party Jamboree*. While *Kirby* and *Super Mario Party* both offer bountiful extras, the *Zelda* games appear to focus largely on graphical upgrades. While we understand having to pay for new game content, charging for the likes of simple performance upgrades feels a little cheeky.

Interestingly, a number of older third-party games will be heading to the system as well, including *Elden Ring*, *Hogwarts Legacy*, *Hades II* and *Star Wars Outlaws*. Retro-related releases include *Street Fighter 6*, *Tony Hawk's Pro Skater 3 + 4*, *Hitman: World Of Assassination*, *Yakuza 0: Director's Cut*, *Final Fantasy VII Remake*, *Puyo Puyo Tetris 2S*, *Shadow Labyrinth*, *Civilization VII*, *Raidou Remastered: The Mystery Of The Soulless Army* and *Arcade Archives 2: Ridge Racer*.

We can't say we're too jazzed about the likes of *Mario Kart World* costing £75, but there's no denying that Nintendo has put together a solid selection of games that should appeal to a variety of fans. Expect reviews of relevant titles in the coming months. ✱

» While two versions of the Neo Geo Super Pocket exist, the Limited Edition has already sold out.

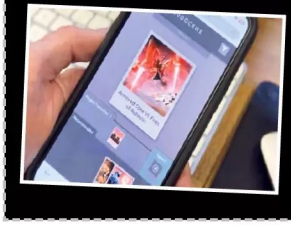
» The Super Pocket range is clearly popular and this Data East offering has some great games on it.

SWITCH'S LAST STAND?

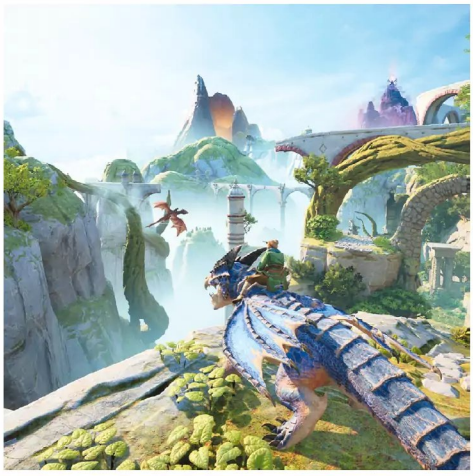
Nintendo dropped a Switch Direct ahead of the Switch 2 reveal, which was packed with retro goodness. *Metroid Prime 4: Beyond* was easily the highlight, but another gem came in the form of a brand-new game in the *Rhythm Heaven* series called *Rhythm Heaven Groove*. PSP games *Patapon 1* and *2*, and *Everybody's Golf* are planned, as is *Gradius Origins*, which will include a brand-new entry in the *Salamander* series from M2. We can't wait.

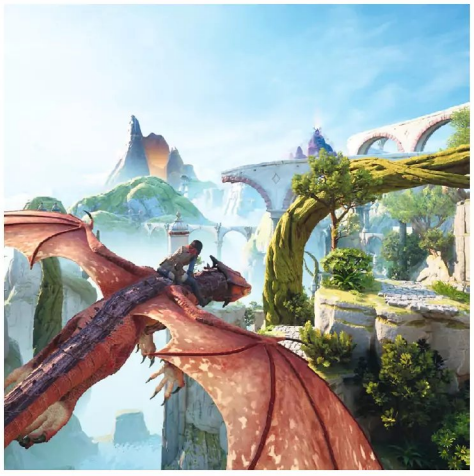
CHOICES MADE EASY

Working out what games to play isn't always easy with so much choice available. Fortunately, Ludocene hopes to change that with recommendations from numerous gaming veterans that should make it easy to find new games to play. While Ludocene is focussed on newer games, it will be covering both retro titles and old-school games that will be of interest to **RG** readers, so if you like the sound of it, head on over to ludocene.com for more information.

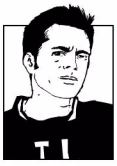


Who is Iain Lee?
Iain Lee is a freelance counsellor who loves gaming, particularly retro gaming. You can get more information about Iain by visiting iainleecounselling.com or heading over to patreon.com/iainandKatherine





Split Fiction



If you read last month's thrilling column, I was about to nip upstairs and play the new game *Split Fiction*. I wasn't completely sure what to expect but what I'd seen made it look decent. I was thrilled to discover it is absolutely outstanding and now easily in my top five all timers. Why so good? Some of the dialogue is a little hokey and the moral messages heavy handed, but I was able to see through that and realise I was playing something very funny, lovingly crafted and bloody brilliant.

Don't worry – no spoilers coming so read on safe in the knowledge that I won't tell you that the main protagonist Dwayne dies in the first minigame. Oops. Sorry about that.

Split Fiction acknowledges its history and has dozens of nods to older games, including a hilarious *A Way Out* tribute. But expect shadows of games much older than that. All of them done brilliantly. And I have to say I spent the last 45 minutes giggling away wondering how on Earth they had managed to pull off what they were doing. It's fair to say I have never seen anything like that final part of the game ever. It's wonderful to see something new and innovative at my old age.

But what really made this so special was the fact I was playing it with my beautiful 13-year-old boy who lives 30 miles away. We've played through the previous games by the same company – *A Way Out* (please don't tell his mum I let him play that) and *It Takes Two*. He has been buzzing about the new one for months. I've got two boys aged 13 and 15, Kimon and Alex, and they are the world to me. They don't live with me and up until a year ago, they'd come and stay at mine pretty much every weekend and sometimes in between. But now they're young men. They go out on their bikes, have sleepovers, the eldest even goes to London with his mates for 'clothes drops'. When I eventually saw a video of what a clothes drop is I was horrified. But then I remember some of the shizz I got up to at 15…

I would never be that dad that insists they come and stay with me, and I am so proud to see them growing into charming, polite young men. But man, I really miss them. Living on my own with four cats is great fun but it can get a little lonely. So, getting a text every evening asking if I can play fills my heart with joy. Whatever I'm doing gets dropped and I dash upstairs to boot up the Xbox. Kim finds it hilarious I am rubbish at the platforming bits, and I take great joy in killing him at every opportunity.

> "It's wonderful to see something new and innovative at my age"

The power of gaming. Whether you're in the same room or talking through a headset, it really can bring people closer. Big up to Hazelight Studios and everyone involved with making this masterpiece. You brought me and my boy just that little bit closer.

PS there are no characters called Dwayne. *

Do you agree with Iain's thoughts? Contact us at:

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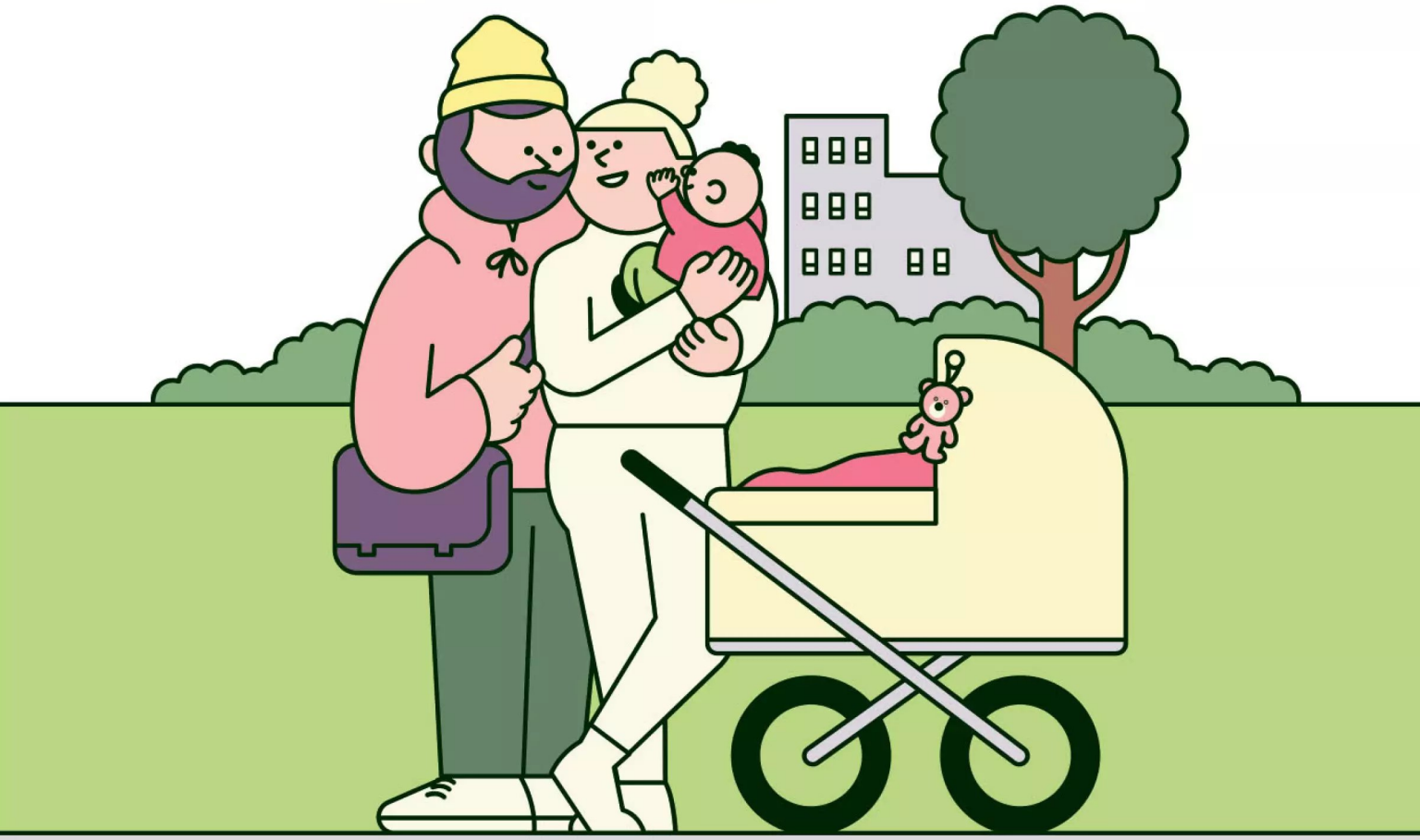

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Who is Paul Rose?
Paul is probably better known as Mr Biffo – the creator of legendary teletext games magazine *Digitiser*. These days, he mostly writes his videogame ramblings over at Digitiser2000.com. If you want more Biffo in your eyes, you can catch him as the host of *Digitizer The Show* at www.bit.ly/biffo2000.

Pigeon steps

Am I the only person on the planet who isn't massively excited about the Switch 2? It's a rhetorical question. I know I am. I don't know what has happened with this current generation of consoles, but they feel like they're pigeon-stepping forwards. I've got a PS5 – someone very kind gifted it to me – but there's still so little to play on it that really justifies the hardware.

Aaaaand... I'm not yet seeing anything from the Switch 2 that is convincing me that I need to fork out hundreds of pounds to upgrade.

I used to get SO excited when new hardware was launched, and I don't think that was just the innocence of youth. Those generational leaps were really about the new types of games we'd be able to play on the new hardware – games that we'd never previously had access to. At least, not in our own homes.

New Nintendo consoles would always try to offer something different to what had come before. Alright, it didn't always work – I'm looking at you, Virtua Boy and Wii U – but they were interesting at least. Even going back to the Game & Watch – the first Nintendo product I ever owned was the *Donkey Kong* handheld – that hardware evolved through different generations. The first Nintendo console I bought was the Game Boy, the logical evolution of the Game & Watch, which cemented me as a Nintendo fanboy.

Then came the Super NES, and it really, truly, felt like a new dawn for gaming. It wasn't just the graphics and sound that felt like something new, but the controller, the console itself. So many buttons compared to what the Mega Drive offered! Between the controller and Mode 7, it really opened up what developers could do with games.

Then you get that full leap into 3D with the N64, the vastly improved graphics (and controller) of the GameCube. And then comes the real jaw-dropper: the Wii, which completely changed the way we interacted with games.

It's no great surprise that the Wii U felt like a company flailing to recapture that magic. That hefty gamepad was a misstep, but – in my opinion – underrated. There were games that used it in really clever ways - *Zombi U*, *Nintendo Land*, *Star Fox Zero* – and it's a shame we didn't actually get more of them.

But the Switch really did seem like a company that had learned from both its successes and mistakes, fusing the best of both the Wii and its successor, as well as the various iterations of the Game Boy and Nintendo DS, and once again changing the nature of gaming.

And now we get the Switch 2, which is... a sort of slightly higher-spec Switch, with games that appear to be slightly higher-spec Switch games.

I mean, if it ain't broke, I guess, but I love my Nintendo when it's being ambitious, pushing the boundaries, trying something different and new. I don't care if it works or not – I just want to see that experimentation.

No doubt the Switch 2 will be a massive success, but... I'm waiting a while to see if it can reignite that feeling of wonder I want from Nintendo. *

> "Then came the Super NES, and it really, truly, felt like a new dawn for gaming"

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AMY LEE

The superstar vocalist discusses Evanescence's new Devil May Cry song and classic games

> "My true love in games is The Legend Of Zelda series, and I really fell in love with that"
> AMY LEE

Capcom's hit hack-and-slash series *Devil May Cry* has recently arrived on Netflix, and the show's soundtrack is definitely evocative of the era in which the games arrived – you might have heard Limp Bizkit in the title sequence and Papa Roach in the trailer. However, Evanescence went one better by recording the new song *Afterlife* for it, and we got the chance to chat to vocalist Amy Lee about the show, the song and the games she loves.

What kinds of games did you grow up playing? Do you have any particular favourites?
I'm very fortunate to have been a kid in the Eighties, so I kind of watched it all go down. We used to rent an Atari from the video store and play Atari games like *Pong* and *Toobin'*. I had an older cousin who had a NES, and it was just the coolest thing to go over there and play that. I think we finally got one when I was nine or ten – it was whenever *Super Mario Bros 3* came out. But my true love in games is *The Legend Of Zelda* series, and I really fell in love with that, along with my younger siblings when *Ocarina Of Time* came out on the N64. So we played that game, we played *Majora's Mask*, and then fast forward to now, *Breath Of The Wild* made me so happy. It's so huge and so gorgeous, and then *Tears Of The Kingdom* too. I have a son now who's ten, so I've got a gamer buddy again, and I don't think of myself like a gamer, but honestly I play a little bit of a videogame pretty much every day. It's part of my chill out routine, like, solve a couple of shrines, do some puzzle solving.

When did you first encounter *Devil May Cry*, and what did you make of it?
I've never played the game – I don't know if you should tell anybody that! But I was aware of the game, I'd seen the artwork, I'd actually seen some gameplay, but really I have been

» [PlayStation 2] Amy bought a Japanese PS2 just to bring the Taiko action home – we approve.

» You'll be familiar with Amy Lee's voice from hit songs like *Bring Me To Life* and *Call Me When You're Sober*.

» You can listen to *Afterlife* by visiting netflixmusic.ffm.to/afterlife or scanning the QR code.

Amy Lee, Evanescence Band PHOTO CREDIT: Travis Shinn / *Devil May Cry: Afterlife* IMAGE CREDIT: Netflix

introduced to this world through this project. Netflix approached me along with Mako [Alex Seaver], who I co-wrote the song with, and I got to watch the whole first season of the show before it was totally finished. Right away, I was hooked on it and binging it every night, and I feel like the visual possibilities of anime are something else that's always appealed to me a lot. It's just one of those things where anything is possible.

Tell us a little about the new song, *Afterlife*, and how it fits into the show.
It's the first thing that we've put out in a couple of years, so that's exciting. It's different for us – the beautiful way that it starts, that mood and that vibe all really came from Mako and the show. But I see myself in that. I know what to do here. I think it's just a killer rock song – I feel like it expresses both the pain, the scars of someone who's been through a lot, but also standing in resolve, unafraid because you know you have nothing left to lose, and you're ready to just give it all you got. I couldn't be more flattered and happy with how they used it. I can't give it away, but it's a very special episode.

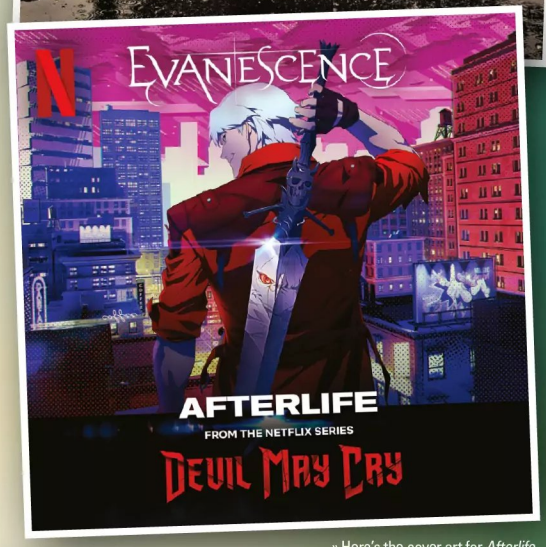
So, we heard a story about *Rock Band* failing you when you tried singing your own songs…
It was like, "I don't hear you, I just hear the voice." Isn't that weird? I really like all those games. I got to go to Japan a long time ago through our music – I've been plenty of times since, but we got to go in 2003 and back then, they had a lot of the games that they weren't playing in America yet. They didn't have *Guitar Hero* or *Rock Band*. So I remember going over there back then and falling in love with *Taiko Drum Master* at the arcades, and they sold a mini version, but you couldn't play it on an American PlayStation. So I bought Japanese everything, and brought it all back – the drums and everything – so that we would have it at our house.

Have you introduced your son to any of the games you played when you were young?
Oh, of course, and he likes that. Like, he'll ask for that specifically, "I just want to play something 8-bit." So he likes *Star Fox* – you know you can buy the pack on the Switch, with all the old N64 games, and he will scroll through those. I actually used to really like – I still do, but we just don't play it as much anymore – *Katamari*. I find that relaxing, because it's like, all this clutter everywhere, and you're just a big ball, just picking it all up until you've just rolled up the whole world. It's the best feeling. He's also super into *Lego Star Wars*, they're fun because you can actually still do two-player with somebody in the room. I feel like there's hardly any games like that anymore.

Do you have anything else you'd like to say to the readers?
Thank you for welcoming me to the *Devil May Cry* world – I am in, and we're really just so excited to have new music out. It feels like it's been too long and it has just popped the cork, and we're writing like crazy, and we're stoked to play this live. ✱

» [Nintendo 64] The *Zelda* series is Amy's big gaming love, particularly the N64 and Switch games.

» Evanescence have sold many millions of albums since their 2003 debut, *Fallen*.

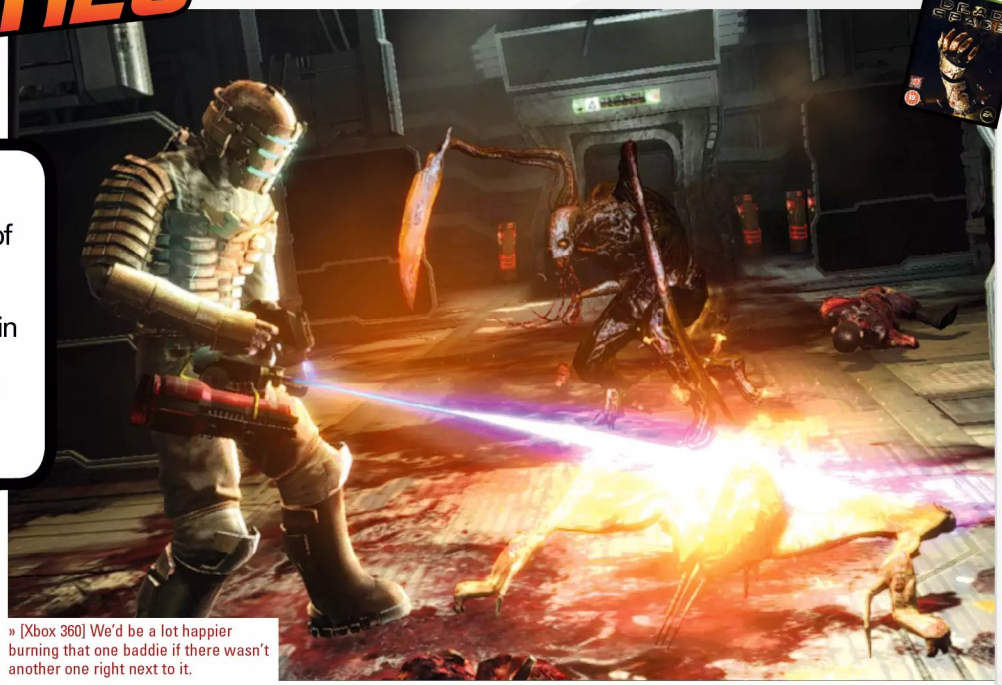


» Here's the cover art for *Afterlife*, featuring Dante in his animated form.

» Dante is more than ready for a bit of demon-slaying action in his Netflix debut.

BACK TO THE NOUGHTIES

NOVEMBER 2008 – Sony storms the shelves in time for the holidays with a trio of treats, but there are plenty of other games vying for your seasonal spending. Join Nick Thorpe for a look back at a captivatingly competitive software showdown



» [Xbox 360] We'd be a lot happier burning that one baddie if there wasn't another one right next to it.

NEWS NOVEMBER 2008

On 2 November, Lewis Hamilton secured his first Formula One driver's championship at the Brazilian Grand Prix. In a dramatic finish, Brazilian driver Felipe Massa won the race and appeared to have secured the driver's championship for himself, only for Hamilton to overtake Timo Glock in the final corners of the race.

Barack Obama became the first African-American to be elected president of the United States on 4 November, with Joe Biden elected vice president. The Democratic ticket decisively defeated the Republican candidates John McCain and Sarah Palin in the electoral college vote, and set a new record popular vote. Key issues during the election included the ongoing economic crisis, public dissatisfaction with the war in Iraq and the unpopularity of the outgoing Republican president, George W Bush.

The Guns N' Roses album *Chinese Democracy* was released on 23 November, after eight years of legal, personnel and label issues. At a cost of $13 million, it was the most expensive rock album ever recorded. The album received a mixed but mildly positive reception from the press and sold slowly at first, but eventually went platinum in the USA, the UK and elsewhere.

THE LATEST NEWS FROM NOVEMBER 2008

Sony appeared to have finally put its PS3 software woes behind it, as the best rated game of the month was the platform game creation suite *LittleBigPlanet*. An exclusive review in *Official PlayStation Magazine* awarded it 10/10 last month, and this month it gained scores of 10/10 in *Edge*, 9/10 in *games™* and 94% in *Play*. "It's a multiplayer riot, a visual landmark, a feat of engineering, and one of the most charming games ever made," said *Edge*. The creative aspect was the focus of the critique, with *games™* complaining that, "Creating strange creatures or objects is effortless, but attempts to think big, to put together levels similar to those of the developer, left us frustrated."

MotorStorm: Pacific Rift served as a strong sequel to the arcade racer that accompanied the PS3 at launch, scoring 93% in *Play*, 8/10 in both *games™* and *OPM*, and 7/10 in *Edge*. Referring to the original's lack of content, *Play* felt that, "Evolution has skillfully answered that complaint with 16 praiseworthy tracks, as well as enough time trials, modes and online options to swallow hours of your lives." *Edge*'s complaints included vehicle classes "that are simply no fun to drive" and that it was "disappointingly unattractive". Those looking for a racing alternative could find *WipEout HD* on the PlayStation Store, a spectacularly attractive PS3 interpretation of the tracks from the PSP games. This earned 84% in *Play* and 8/10 in both *games™* and *Edge*, as well as 9/10 in *OPM* last month.

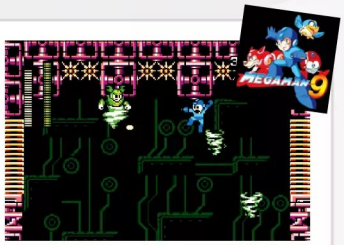
Not to be completely outdone, Microsoft also had a big exclusive in the form of *Fable II*, which scored 9/10 in both *games™* and *Edge* and 8/10 in *Official Xbox 360 Magazine*. *360* gave the game 4/5, despite noting that it took

» [Xbox 360] Tim is credited with *360*'s *Fable II* review – will he recognise his words here? [Umm, worryingly no –Tim]

two days to finish the main story, advising that, "If you take the time to explore *Fable II*'s world – and we mean really explore, as there will be areas to find that aren't part of the main quest – you will get a lot out of it," and that players should pursue relationships and buy property. However, the review did advise readers to hold off due to the lack of co-op and loading issues, saying that, "As there are loads of games out now, you may as well wait until it's patched and a good bit cheaper."

The big multi-platform game of the month was EA's survival horror *Dead Space*, which scored 9/10 in *OXM* and *Total PC Gaming*, 87% in *Play*, 86% in *PC Gamer*, 8/10 in *OPM*, *games™* and *Edge*, and 4/5 in *360*. "*Dead Space* plays like a top 100 killer gameplay features list of the last ten years, but we never found ourselves questioning whether EA had made this game its own or not," said *Total PC Gaming*. "It's immersive, disturbing, clever, challenging and disgusting in equal measures." First-person shooter sequel *Far Cry 2* was also available across platforms, and scored 9/10 in *OPM* and *OXM*, 8/10 in *games™* and *Edge*, 4/5 in *360*, 74% in *Play* and 7/10 in *Total PC Gaming*. *OXM* felt that, "The wealth of strategies available when completing the story missions is really quite outstanding," but *Play* complained of a flawed map system, repetitive guard post encounters and a player character that "can't sprint ten metres without being on the brink of cardiac arrest".

» [PC] Ubisoft apparently forgot how to use colours between the original *Far Cry* and its sequel.

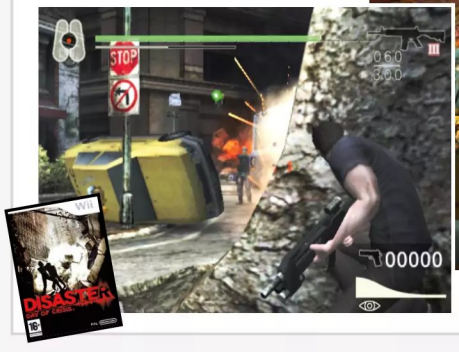


» [PlayStation 3] *Mega Man*'s retro outing was generally beloved, but a few dissenting voices were found.

On the Wii, the heavily delayed *Disaster: Day Of Crisis* finally arrived, with a blend of shooting, driving and action adventure gameplay. "Many dramatic events seem to have been lifted directly from Nineties movies – but it's difficult to not like a game that makes you the hero in such a gloriously overblown setting," said *nRevolution*'s 8/10 review. *Official Nintendo Magazine* gave it 82%, but *games™* was less impressed, saying "its insistence on labouring every interaction with a waggle or a shake can feel somewhat outdated now".

Finally, the downloadable game *Mega Man 9* divided critics with its faithfulness to its NES predecessors – *X360* gave it 9/10, feeling that it "serves as the perfect window into a lost art", while *OPM* slammed it as being "for masochists who think progress ended with 8-bit gaming" in a 5/10 review. It also received 9/10 in *OXM*, 90% in *ONM*, 8/10 in *games™*, 4/5 in *360*, 7/10 in *nRevolution* and 6/10 in *Edge*.

Join us again next month, when the Christmas chaos commences once more. ✱



» [Wii] *Disaster: Day Of Crisis* is a genre mash-up that's ludicrous in all the right ways.

» [PlayStation 3] Sackboy's first outing is the clear game of the month, in a strong month for Sony.

CHARTS

NOVEMBER 2008

XBOX 360

1 – **FIFA 09** (EA)
2 – **Brothers In Arms: Hell's Highway** (Ubisoft)
3 – **Star Wars: The Force Unleashed** (LucasArts)
4 – **Pure** (Disney)
5 – **Tiger Woods PGA Tour 09** (EA)

WII

1 – **Wii Fit** (Nintendo)
2 – **Mario Kart Wii** (Nintendo)
3 – **Wii Play** (Nintendo)
4 – **Big Beach Sports** (THQ)
5 – **Star Wars: The Force Unleashed** (LucasArts)

PSP

1 – **Tiger Woods PGA Tour 09** (EA)
2 – **Crisis Core: Final Fantasy VII** (Square Enix)
3 – **Lego Indiana Jones** (Activision)
4 – **Wall-E** (THQ)
5 – **God Of War: Chains Of Olympus** (Sony)

MUSIC

1 – **Hero** (X Factor Finalists)
2 – **Live Your Life** (TI feat. Rihanna)
3 – **If I Were A Boy** (Beyonce)
4 – **Human** (The Killers)
5 – **The Boy Does Nothing** (Alesha Dixon)

THIS MONTH IN...

nRevolution

A review of the arcade classic *Dig Dug* on the Virtual Console service laments that, "Namco's crusty old title gets all the credit, while the similar but far superior *Mr Do!* generally gets ignored." Clearly a review by our very own Darran, then. [I stand by it – Ed]

Edge

"Try to imagine how Sega could ever revive a genre with its own licences," says Sega's Tez Okano in an issue stuffed with reviews. "Should we have done *Crying? Whip Rush*? Come on! Of course it had to be a name as legendary as *Thunder Force*!"

Play

A lack of new PSP games is causing consternation for the popular PlayStation mag. "What happens when you don't release new software for your own platform? The old stuff ends up sticking around," says *Play*, on *God Of War*'s chart placing.

Bump 'N' Jump

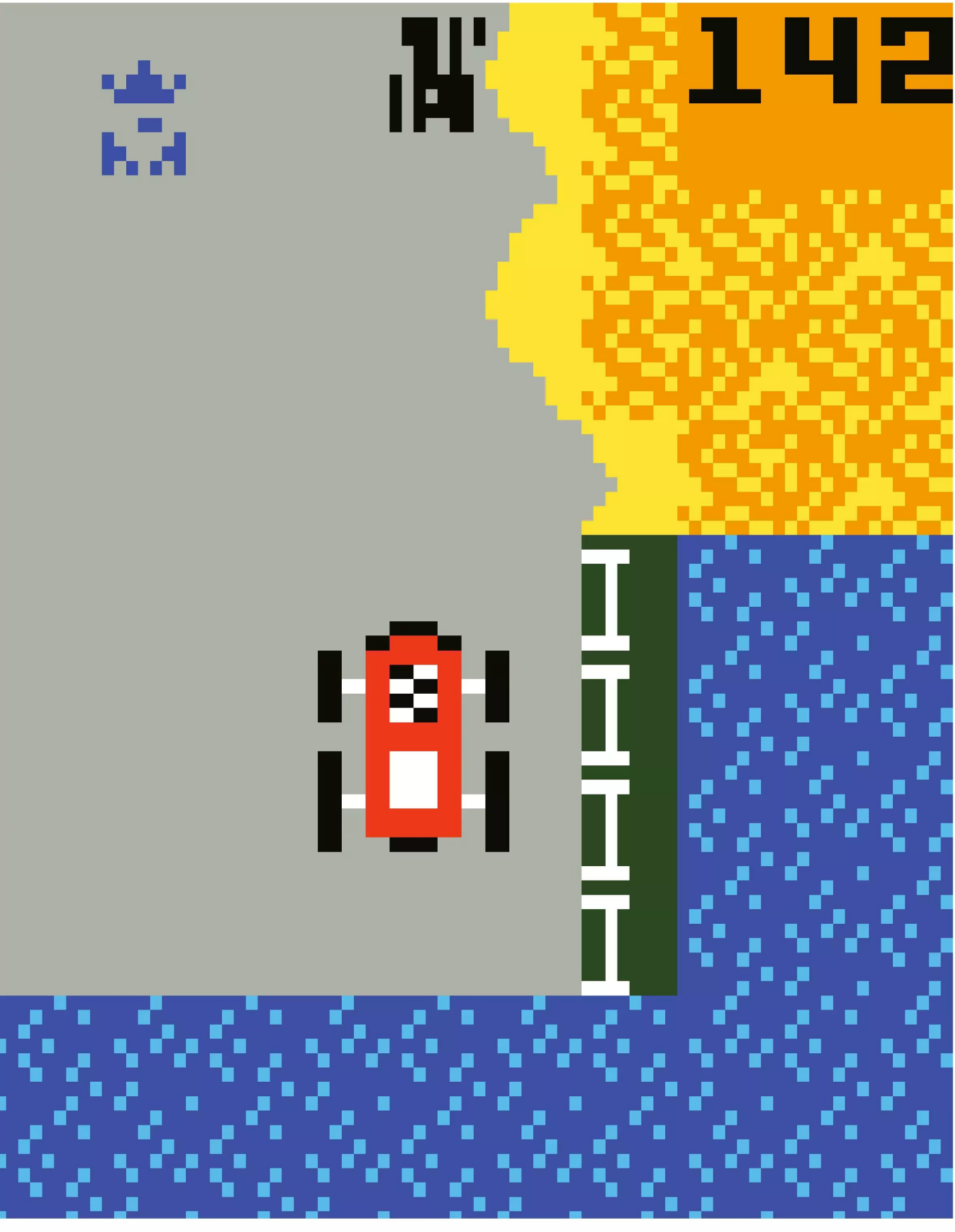
RUSH HOUR RELIEF

» INTELLIVISION » 1983 » TECHNOLOGY ASSOCIATES

I recently became rather excited when the headline "Carmageddon time in Harlow" appeared on a local news website. Finally, lawless vehicular slaughter comes to *my* neighbourhood! Unfortunately, clicking through to the article revealed the disappointing truth – a road between the train station and town centre was being closed, as part of a seemingly endless programme of roadworks that has my home town poised to replace Tiptree as the jam capital of Essex.

Fortunately, *Bump 'N' Jump* affords me the opportunity to take out my frustrations with traffic congestion, safely and rather literally. Your job is to bump into other cars, sending them into the sides of the road and causing them to explode, a just punishment for the audacity of attempting to use the road while you're trying to use it. Of course, the traffic situation would probably be better if there weren't massive gaps in the road, but that's where the jump part comes in – thanks to an incredible suspension system, your vehicle can safely leap over substantial bodies of water and land safely on the other side. It's good, simple arcade fun, with the challenge being to get enough speed to really jostle the opposition while maintaining a relatively safe central position on the road.

One thing I particularly love about this game is the story behind how it was made. The sadly defunct website Intellivisionlives.com explained that the programmers, Joe Jacobs and Dennis Clark, had managed to create their own development system by hooking up the Intellivision's PlayCable unit to a PC. Once they demonstrated this to Mattel, the platform holder's response was to keep them away from the competition by giving them a contract to create this conversion of Data East's arcade game. They earned $24,000 (approximately $76,900 adjusted for inflation) for the job, which seems like a healthy return for something that came from a homebrew hacking project. ✱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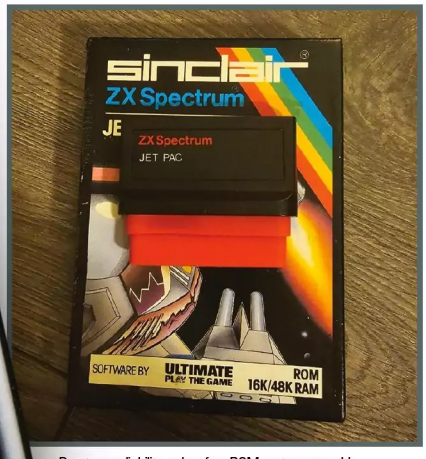
MASTERING THE ZX SPECTRUM

ON 21 APRIL 1982, SINCLAIR RESEARCH UNVEILED ITS LATEST HOME MICRO, THE ZX SPECTRUM. THIS SMALL AND IDIOSYNCRATIC DEVICE WOULD HELP KICKSTART THE UK GAMES INDUSTRY, INSPIRING PEOPLE ALL OVER THE COUNTRY TO START PROGRAMMING. IN THIS SPECIAL FEATURE, WE LEARN FROM SOME OF THEM JUST WHAT CREATING GAMES ON THIS MAGICAL YET FLAWED COMPUTER WAS LIKE

WORDS BY GRAEME MASON

» First seen in March 1982, the magazine *Sinclair User* soon eschewed the ZX81 for ZX Spectrum content.



» Due to unreliability, only a few ROM carts were sold. They fetch a high price today. Image credit: Jamie Williams.

» The Sinclair 128K Spectrum, an unfortunate casualty of the Amstrad Spectrum buyout. Image credit Paul Martin.

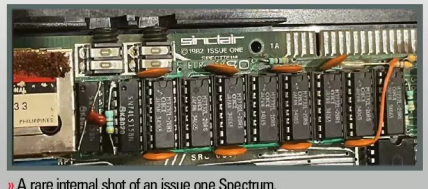


Image credit: Paul Martin

» A rare internal shot of an issue one Spectrum.

Released to an eager public that spring day in 1982, the success of the ZX Spectrum had been building for two years. When, in 1980, Sinclair (then Science Of Cambridge) released its breakthrough micro computer, the ZX80, it planted the seeds of what would eventually blossom into the UK's most successful computer of the Eighties.

Sales of the ZX80 were solid rather than spectacular, its value-for-money appeal neutered by a tiny memory (even by contemporary standards) and a flickering display. Undeterred, Sinclair built on the concept, releasing its first major hit a year later, the ZX81. Now users had a serious entry-level home computer, retailing for under £100 and enabling anybody to program using its in-built BASIC language. A 16K RAM pack expansion boosted the power and possibilities of the ZX81 further.

Despite the popularity of the ZX81 – it is estimated to have shifted over a million units in its lifetime – Sinclair was slow to take advantage. Who knows how much more cash the company could have earned if it had marketed its own 'datacorder' or 'data recorders', essentially a rebranded shoebox-style tape player? Instead, Sinclair focussed on its next entry in the affordable computer market – the ZX82.

The ZX82, also known as the ZX81 Colour, began development almost as soon as its predecessor was lining the shelves of computer dealers up and down the UK. Planned as a massive leap up from the ZX81, featuring a 'proper' keyboard, full-colour display and a useable amount of onboard RAM, a name change emphasised the distance further from its predecessors and its multi-coloured capabilities: ZX Spectrum. "I was really excited [about the Spectrum]," says Raffaele Cecco, author of some of the computer's finest later-era games, including *Exolon* and *Cybernoid*. "I loved my ZX81, but it was quite limited with its 1K of RAM, no colour and no sound." The ZX Spectrum would change all that.

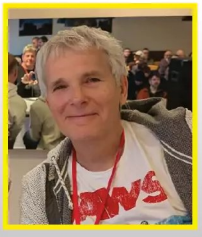
The first dedicated Sinclair magazine, *Sinclair User*, launched in March 1982. Edited by John Stericchi, the initial few issues focussed on the ZX81, its pages full of adverts for games, peripherals and utilities. It's fascinating to read Stericchi's Sinclairvoyance column about how the Sinclair ZX81, barely a year old itself, was already being overtaken by the incoming computer. "Speculation about the [ZX82] began almost as soon as the ZX81 appeared," he noted. "A ZX80 in 1980, a ZX81 in 1981. What could be more helpful than a ZX82?" Or rather, a Spectrum, the name changed to avoid the constant demand for a computer, plus to reflect the new colourful display. "I was entirely taken by surprise [by the Spectrum]," remembers Sandy White, author of the groundbreaking *Ant Attack*, published by Quicksilva. "Whatever you say about the keyboard, it was pretty cool and an amazing advance on the MK14, ZX80 and ZX81 keyboards. The overall feel and appearance are like nothing else and buried deep in my psyche!"

> "I LOVED MY ZX81, BUT IT WAS QUITE LIMITED"
> RAFFAELE CECCO

Also writing in that issue of *Sinclair User* was Andrew Hewson, boss of software house Hewson Consultants, latterly Hewson. An early adopter of the ZX80 and ZX81, Hewson's Helpline assisted new users throughout the magazine's run, ranging from basic questions to advanced programming techniques. In his book, *Hints & Tips For Videogame Pioneers*, Andrew notes the significance of the arrival of the Spectrum. "Before [the Spectrum], we were an embryonic industry serving a growing niche of enthusiasts. Machines like the ZX80 ▶

THE INTERVIEWEES

SANDY WHITE
■ *3D Ant Attack, Zombie Zombie, I, Of The Mask*



MIKE RICHARDSON
■ *Scuba Dive, Thanatos, Turbo Esprit*

RAFFAELE CECCO
■ *Exolon, Cybernoid, Stormlord*

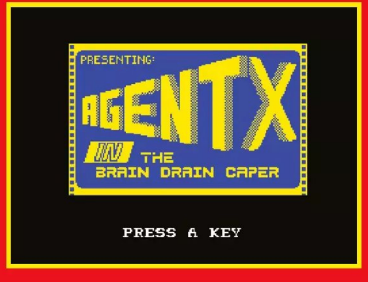
DEAN BELFIELD
■ *Gauntlet III: The Final Quest, Sly Spy, Solar Invasion*

TOP TRICKS

WITH LITTLE OR NO HARDWARE SUPPORT, SPECTRUM CODERS RELIED ON THEIR CUNNING AND INGENUITY

SMOOTH SCROLLING

■ Many arcade conversions required their Spectrum counterparts to scroll. To do this quickly (as needed), one technique essentially 'races the beam', generating the image over two frames and drawing the background behind the first frame, with the sprites drawn ahead of the raster on the second frame.



SOUND OFF, ON

■ Initial users found melodious tunes challenging to extract from the Spectrum's tinny speaker. Yet by expertly manipulating the frequency of the Beeper, talented musicians such as Tim Follin and Martin Galway produced stunningly catchy music, effectively 'phasing' the sound instead of the singular, farty beep.

XOR LINE ON, LINE OFF

■ This is a very effective technique that was pioneered by the Stamper brothers at Ultimate, among others. Principally, each line of a sprite is wiped and then redrawn at its new position using a binary XOR logic gate. The result is you end up with a fast sprite that sometimes shimmers but doesn't overwrite the background.

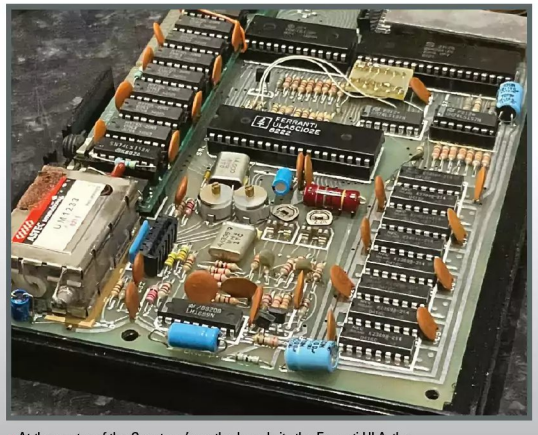
THANKS FOR THE MEMORY

■ Even with careful optimisation, fitting everything into the Spectrum's memory was testing for programmers. One trick was to display your game in 'widescreen' with black borders on the top and bottom using black ink on black paper. These areas are then used for runtime variables, invisible to the player.

▶ and ZX81 had taken us to that point, but their wider success was still tempered by the clunky design and rudimentary performance. When the Spectrum came along, we reached a tipping point." Retailing for either £125 (for the 16K model) or £175 (for the 48K model), Sinclair's new micro was by far the cheapest home computer on the market on release, which helped it burst into high-street retailers such as WHSmith. Yet the outside of the Spectrum, a compact, toy-like appearance, disguised the ingenuity and prudence of Sinclair. Let's take a PEEK at the inside. [Very clever – Ed]

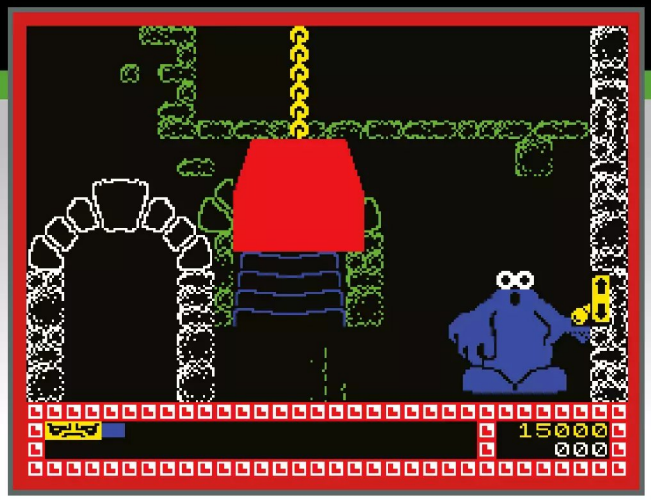
Firstly, the central processing unit, or CPU. Here, Sinclair decided not to change a winning team, keeping the Z80 processor of the ZX81. The Spectrum's Zilog Z80 chip is clocked at 3.5MHz via an onboard crystal, essentially to harmonise its performance with the computer's other components. Next to the processor is the Uncommitted Logic Array (ULA), a custom chip that manages video, keyboard, incoming and outgoing data (via a tape recorder), and sound, via a device colloquially known as the Beeper. Manufactured by Ferranti, based in Greater Manchester, the Spectrum's ULA allowed Sinclair to customise the Spectrum to its needs and is analogous to the modern FPGA used on the Spectrum Next, albeit with a lower transistor count and locked programmability to the user – once the Spectrum left the factory, the consumer was unable to make any changes to its functions.

For sound, the Spectrum has a loudspeaker – using the BEEP command allows the user to influence the pitch duration of a signal from the computer, the 'Beeper' pulsing when a 1 or 0 is written to bit four of port 254. While a primitive set-up, even for the time, skilled musician coders like Tim Follin extracted multiple channel sounds by pulsing the Beeper several times at different frequencies.



» At the centre of the Spectrum's motherboard sits the Ferranti ULA, the busy chip through which many of the Spectrum's functions channel.

Image Credit: Paul Martin

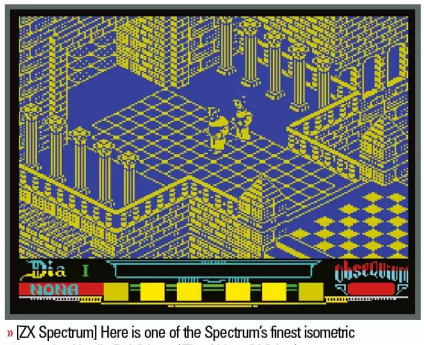


» *Sinclair User* looks inside the new Sinclair computer.

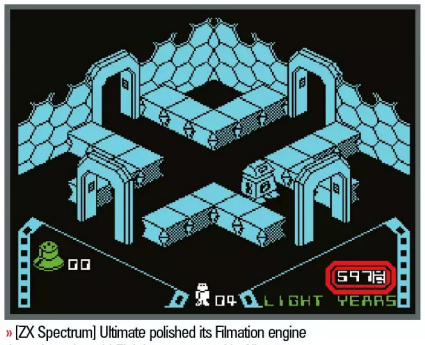
Stephen Adams looks inside Sinclair's secret machine and finds it has a lot in common with the Oric-1

Taking the lid off the Spectrum

» [ZX Spectrum] The late Don Priestley's games had their own eye-catching style.



» [ZX Spectrum] Here is one of the Spectrum's finest isometric games, *La Abadia Del Crimen* (*The Abbey Of Crime*).



» [ZX Spectrum] Ultimate polished its Filmation engine throughout the mid-Eighties, as seen with *Alien 8*.

The Spectrum has 64K memory in total, the bottom 16K ROM housing the system's operating system (BASIC), which remains constantly on board while the 48K RAM is wiped whenever the user switches off the machine. Of that RAM, the screen display uses 6.75K, leaving 41.25K for programs. Meanwhile, the much-maligned keyboard was nonetheless a step up from Sinclair's previous efforts. "The rubber keys were very tactile," says Raffaele. "And I much preferred them to the ZX81's keyboard." Instructions could be typed via the expanding commands, helping novice users to make simple programs ("Hello Mum") within minutes of setting up their new computer.

By the summer of 1982, *Sinclair User* was reporting a pre-tax profit of £10 million for Sinclair, chiefly off the back of the ZX81. The same issue (cover dated June 1982) contained Robin Bradbeer's review of the ZX Spectrum. "The Spectrum is a colour and sound computer for the incredibly low price of £125," he began, frequently comparing it to its predecessor in nothing but glowing terms. Only the computer's sound drew criticism ("The internal speaker emits a 'raspberry'-like sound, set normally at a frequency of middle C") while noting that clever coding could achieve more, "It is also possible to have fractional intervals so that unusual scales can be generated."

Despite the excitement generated by its April launch, production delays meant that most people didn't get their hands on a shiny new Spectrum until Christmas 1982. For several months, the ZX81 still dominated the pages of *Sinclair User*, but that was about to change as 1983 dawned. Advertisements for Spectrum software and peripherals slowly edged out everything else. The peripherals – devices used to expand the capabilities of the Spectrum – swiftly became big business, not least for Sinclair itself. Its centrepiece was the Interface 1 and Microdrive, which permitted fast loading and saving and a port for connecting the Spectrum to a printer. Developers learned to rely on these rather than saving their progress to time-consuming cassette tape. Remembers Raffaele, "I used Microdrives for storing my source code – they were great, as I could load programs far quicker. I also had the little printer with its rolls of silver thermal paper, and I can still remember the burning smell!" ▶

> "THE OVERALL FEEL AND APPEARANCE ARE LIKE NOTHING ELSE"
>
> SANDY WHITE

IF IT BLEEDS, WE CAN STOP IT

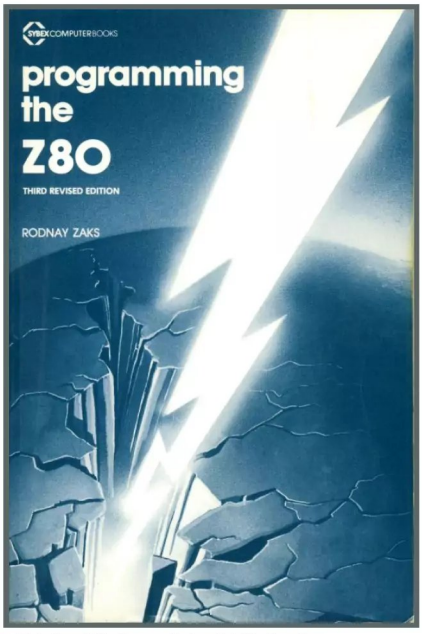
UNSIGHTLY ATTRIBUTE CLASH WAS THE BANE OF SPECTRUM PROGRAMMERS AND ARTISTS – BUT THERE WERE WAYS OF AVOIDING IT...

Despite allowing manipulation of each individual pixel in the Spectrum's display, its colours were set in eight by eight squares. Each of these squares could only contain two colours; introducing another colour – such as a sprite walking past background scenery – would result in the third colour overwriting one of the existing colours, creating a distinctive and unsightly rainbow of hues.

Bypassing the issue was a Holy Grail for Spectrum games programmers. Early games ignored the problem – the *Wally Week* arcade adventures, for example – or used only two colours for the main game area, an effect that became known as 'monochrome', while adding more colours to areas where attribute clash was not an issue, such as in borders and control panels. Famous isometric Spectrum games such as *Knight Lore* used this method, but it created visibility issues in action-packed shoot-'em-ups, informally known as invisible bullet syndrome by frustrated gamers.

The problem could be partially dodged by using carefully designed graphics blocks and basing the game around them. An early originator of this technique was the recently passed Don Priestley, whose games contained massive sprites with minimal clash; but it wasn't until the 1986 shoot-'em-up *Light Force* that developers managed to shoehorn this into a faster-paced game, moving everything in blocks of eight pixels. Other games, most notably Virgin's *Dan Dare* (below) and Raffaele Cecco's *Exolon*, had monochrome sprites laid behind colourful foreground scenery, while Mike Singleton (*The Lords Of Midnight*) had his own solution, surrounding the vast sprites of *Dark Sceptre* with an eight-pixel thick black border.

» For just 30 quid, you get your Spectrum to talk.



» Originally published in 1979, Rodnay Zaks' book on Z80 programming was invaluable to keen coders.

▶ Later, like his peers, Raffaele used a PC or development machine to build his code before transmitting it to the Spectrum for testing. But whether you programmed directly on a Spectrum or via another computer, one issue all coders had to tackle was the infamous attribute clash, more commonly known as colour clash.

While undoubtedly a revolution in fine colours, offering eight basic hues plus their BRIGHT equivalent, the Spectrum's display came with a price. With no sprite assistance from the Spectrum itself, its display permitted just two colours within each 8x8 block. It was efficient but ugly when the program introduced a third colour into the mix, overwriting one of the other colours and creating a mess of variable colours. "I just accepted the colour clash as a quirk of the Spectrum that you had to work around," recalls Raffaele. Savvy programmers designed their games carefully to minimise the effect. "I would make the character walk behind objects of a different colour so you wouldn't see the obvious clashing colour rectangle over the object," continues Raffaele. "But otherwise, the Spectrum's display actually had a decent resolution for the time; although it did have a strange, non-linear format in the way it stored each line of the display. Quite odd the first time you encountered it."

Like Raffaele, most coders tolerated attribute clash – but that didn't mean they had to like it. Notes Sandy, "It was horribly frustrating – I wanted *Ant Attack* to be in colour but hated the colour bleed around the characters." Unhappy with his efforts to correct the issue, the programmer gave up and made his debut game monochrome, a customary last resort. "But by the time *Zombie Zombie* came around, I'd made peace with it and accepted the artefacts," he smiles.

Set at 256x192 pixels, there's a clever trick to the Sinclair computer's display. Drawing a pixel for the Spectrum's screen requires two sets of information from the RAM: its bitmap data and its colour data, stored in a grid of rows and columns. This fetch is the ULA's job, but there's not normally enough time for the chip to poll the RAM twice. Instead, it employs a

> "I JUST ACCEPTED THE COLOUR CLASH AS A QUIRK OF THE SPECTRUM"
>
> **RAFFAELE CECCO**

» [ZX Spectrum] Escaping giant ants in Sandy White's groundbreaking *Ant Attack*.

» [ZX Spectrum] Games such as Steve Turner's *Avalon* offered real worlds and enemies that hunted you from screen to screen.

ESSENTIAL PERIPHERALS

JOYSTICK INTERFACE

■ Quite simply, if you wanted to play games, you needed a joystick interface, and Kempston emerged as the best-supported brand in the mid-Eighties. Plugging into the Spectrum's expansion bus, the interface supplied one or more standard nine-pin slots, compatible with almost all joysticks.

ZX MICRODRIVE

■ A high-speed mass storage device that utilised a tape loop to mimic a disk drive, giving fast loading and random access. A purported boon to both users and programmers, the Microdrive was sadly unreliable, and while significantly cheaper than contemporary disk drives, it didn't plug directly into the Spectrum, requiring a…

ZX INTERFACE 1

■ Released alongside the Microdrive, the Interface 1 allowed control of up to eight Microdrives and included an RS232 standard interface for connection to hardware such as a printer. Unfortunately, purchasing the set cost £80, approximately £400 today – relatively cheap, yes, but still out of reach for many users.

mode called DRAM Page Read, where the bitmap and colour data feature within the same row, enabling the ULA to select the row once per pixel and then only needing to select the relevant columns twice. This efficiency permitted the draw to work twice as fast while sometimes creating a slightly messy display, most notably as games loaded into the computer's memory.

As developers wrestled with the Spectrum, their skills improved, which was reflected in the changing software market. Serious programmers quickly realised that the Spectrum's in-built BASIC language wasn't up to running fast, exciting action computer games. "You had to write [your games] in machine code," notes Raffaele. "It was many, many times faster than BASIC." Machine code – a series of binary numbers incomprehensible to the untrained human eye – allowed the programmer to tap directly into the Spectrum, allowing them superior control over all its functions. Bob Pape, author of the legendary arcade conversion *R-Type*, remembers reading a magazine article that explored the computer beyond BASIC in his book, *It's Behind You*. "[It was] about how you could use ROM routines instead of BASIC commands to do things like clear the screen and make a single pixel appear on-screen quickly instead of using the BASIC PLOT command. I thought, hmmm, if I could do this 64 times, then I could make an 8x8 pixel graphic appear anywhere on the screen I liked."

Bob duly constructed his graphic via simple loops in machine code, eventually getting it to appear anywhere on the screen instantaneously. Despite the potentially dynamic results, writing in machine code was often dull and laborious – and prone to unexpected errors. Books such as Rodnay Zaks' *Programming The Z80* had already been around for several years when early computing book specialist Melbourne House published Drs Ian Logan and Frank O'Hara's *The* ▶

» [ZX Spectrum] Fast and furious, *Chase HQ* shows that even racing games can get pulses running on the Spectrum.

» [ZX Spectrum] The movie licence *Cobra* is the work of one of the Spectrum's most talented coders, the late Jonathan 'Joffa' Smith.

» [ZX Spectrum] Fast 3D terrain scrolling is an impressive feature of Mike Richardson's *Combat Lynx* (see **Retro Gamer** 271).

» [ZX Spectrum] An explosion of colour in Raffaele Cecco's awesome *Cybernoid*. Its sequel is also great.

» [ZX Spectrum] Many games, such as Simon Brattel's *Dark Star*, began life as a demo, in this case, of a rolling starfield.

» [ZX Spectrum] An early progenitor of fast, action-packed gaming on the Spectrum, *Deathchase*.

SIR CLIVE SINCLAIR'S DREAM WAS TO HAVE THE SPECTRUM AT THE CENTRE OF A MASS OF TECH. HERE ARE THE MOST ESSENTIAL ADD-ON FOR IT

MULTIFACE ONE

■ AKA The Hacker's Delight. Romantic Robot made its name with the Multiface One, a user-friendly add-on enabling users to pause, save and hack into virtually any ZX Spectrum software. When combined with another hacking device, the Genie, the magic really was out of the bottle.

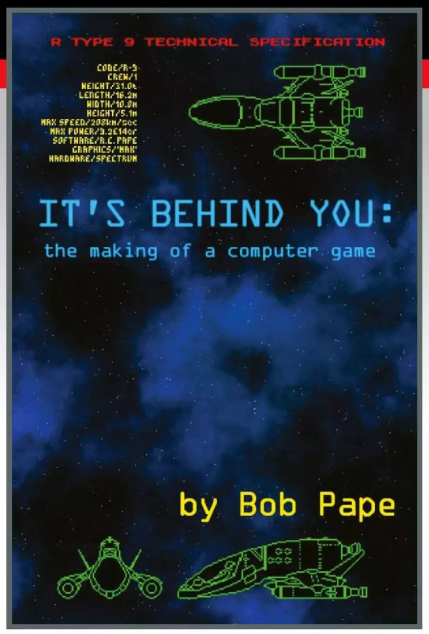
CASSETTE PLAYER

■ Unlike the Spectrum's great rival, the Commodore 64, any standard tape player could load games into its memory. A tape counter was a bonus; otherwise, most players worked perfectly well. Usually included with bundles from shops such as Dixons, but typically retailing for around £20.

DK'TRONICS KEYBOARD

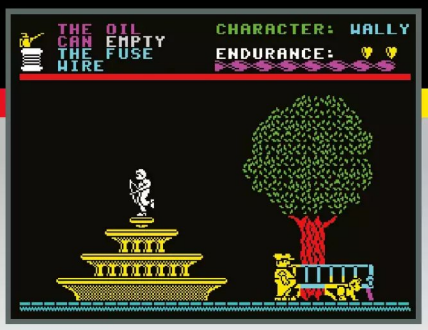
■ While iconic today, the Spectrum's dead flesh keyboard wasn't the best for heavy users. A must for programmers, in particular, add-on keyboards such as this encased the computer, transforming it into a more professional-looking and easier-to-use unit. Some even boasted a separate numeric keypad.

Cassette Player Image credit: Getty Images /Dale Robins



» Bob Pape details his efforts in producing one of the Spectrum's finest arcade conversions, *R-Type*, in his excellent book.

» The Spectrum spawned a varied market for add-ons.



» [ZX Spectrum] Ignoring attribute clash, *Wally Week* style.

» [ZX Spectrum] Bob Pape's amazing arcade port of *R-Type*.

» [ZX Spectrum] Realtime's remarkable shoot-'em-up, *Starglider*.

▶ *Complete Spectrum ROM Disassembly* in 1983, and the machine code future began to formulate. Assembler utilities such as Hisoft's popular Devpac and Crystal Computing's Zeus then enabled them to program machine code by using the assembler's more human-friendly language before the utility converted the result to binary machine code. Each assembly instruction was typically matched to one machine code instruction.

The next task was how to get even more tricks and optimisation via machine code. "You'd look at which instructions [in the machine code] were faster than others," notes Raffaele. "For example, if you were wiping the screen – filling it with zeroes – it was quicker to point the Z80 stack at the screen, then 'push' zeroes onto the stack, rather than clearing the screen in more obvious ways." As always on the Spectrum, developers faced an uphill battle to get their games working – and working fast, or even at an acceptable pace. "You could also do things like sequentially repeating the same instruction rather than perform them in a loop," adds Raffaele, "as the latter is slower due to the looping command."

Most programmers improved with each game, refining the techniques learned from project to project. A good example is Mike Richardson, honing his 3D skills in *Combat Lynx* before further expanding them for what many consider one of the ZX Spectrum's finest games. "For *Turbo Esprit*, I reused the fundamental drawing techniques I'd learned on *Combat Lynx*," says Mike. "The 3D is based on a lookup table indexed by the quantised

THIS YEAR'S MODEL

RETRO GAMER LOOKS AT EACH MODEL OF SPECTRUM

ZX SPECTRUM 16K

1982

■ Released in the spring of 1982, the Spectrum's small design, low price and tangible improvement over the ZX80 and ZX81 – colour! Actual graphics! – helped it become a best-seller and usher in a new era of technology. Users could upgrade their 16K models with an internal 32K RAM.

ZX SPECTRUM 48K

1982

■ This 'enhanced' version of the Spectrum was identical to the 16K model save for the extra 32K of RAM included. Both models featured the rubber keyboard and an aesthetically pleasing design. Its low price, high-resolution display and relative wealth of colours soon made it a home for gamers.

ZX SPECTRUM 48K+

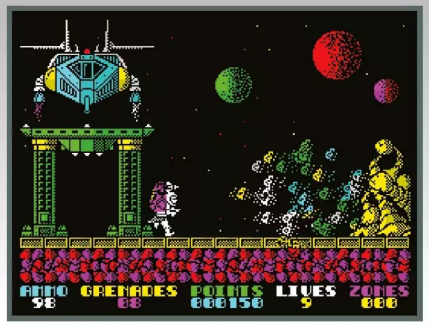
1984

■ Stung by criticism of the Spectrum's rubber keyboard, Sinclair developed the 48K+ model. Its improvements were a brand-new case, inspired by the Sinclair QL range, and a reset button. Despite good sales, the 48K+ had a high failure rate and inadvertently helped scupper Sinclair's 128K machine.

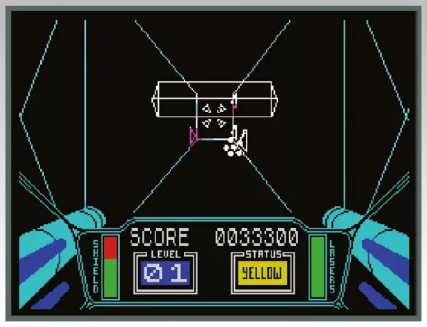
ZX SPECTRUM 128K

1986

■ Sinclair's final Spectrum endured a difficult time, with substantial remaining stocks of its predecessor delaying its UK release until early 1986. Dubbed the 'toast rack' due to its prominent external heatsink, it improved the sound, but not the display, and was withdrawn once Amstrad purchased the name.



» [ZX Spectrum] Raffaele Cecco's *Exolon* didn't totally avoid colour clash, but it distracted you enough so you didn't notice it.



» [ZX Spectrum] Vector graphics specialists Realtime got its shooters moving fast enough for exciting gameplay.

» [ZX Spectrum] Pete Cooke's background in mathematics no doubt helped him construct the beautifully shaded environments of *Tau Ceti*.

distance from the viewpoint. The table contained constants mostly for 3D to screen coordinate conversion, which I modified until the scene looked right." Clever stuff, but there were always limits: in *Turbo Esprit*'s case, Mike could not scroll the screen around corners, instead resorting to flipping the display 90-degrees.

Yet designing *Turbo Esprit*'s complex city wasn't even half the battle – Mike needed to populate his world, all within the Spectrum's memory. "The biggest challenge was the car AI," he explains. "This consisted of a 2D map of the junction ahead of the player's car and the (up to) four roads that led into it." This internal map helped *Turbo Esprit*'s collision detection, AI and scene rendering, creating a new junction model as the player races through the existing one. The enemy cars and the many innocent city motorists only existed with each model, disappearing into the ether once the player moved on.

> "I USED A STATE MACHINE THAT RAN ENTIRELY IN CPU REGISTERS TO DRAW TRIANGLES ON THE SCREEN"
>
> SANDY WHITE

As a consequence of these steady improvements, early notable releases, such as *Ant Attack*, laid a template for future games, defining the techniques that were smoothed and adapted over the years. "Very simply, the cubes [that make up the game] are drawn in order, back to front – sprites too," explains Sandy. "Hidden objects then take care of themselves – it wasn't very efficient, but it worked." For Sandy's final game, the mind-blowing *I, Of The Mask*, the coder employed even more trickery. "I used a state machine that ran entirely in CPU registers to draw triangles on the screen," he says. "No screen byte is ever written more than once per frame, saving loads of cycles." Inevitably, programmers would learn from each other's work; in the case of *Ant Attack*, Ultimate took its basis and introduced a flick-screen environment boasting large, cartoon and life-like characters. The result, *Knight Lore*, revolutionised ZX Spectrum games. Meanwhile, for its innovative Freescape engine, Incentive Software reverse-engineered *I, Of The Mask*, utilising many of its traits in *Driller*.

By 1984, Sinclair, having released the stop-gap Spectrum 48K+ (of which the most significant improvements were a reset button and proper keyboard), was busy on a new Spectrum proper, the 128K. With its vastly superior memory capacity and a new sound ▶

ZX SPECTRUM +2
1987

■ Ever the pragmatist, Alan Sugar wasted little time taking the design of Sinclair's 128K and moulding it into the 128K +2. Now, with an in-built cassette player and two joystick ports (albeit proprietary), the Sinclair was at last being directly marketed to its primary users: gamers.

ZX SPECTRUM +3
1987

■ The Spectrum finally got its own built-in disk drive in 1987, inside a similar case to the +2. However, rather than using the industry standard 3.5-inch, Amstrad opted for its own 3-inch disks, and with games costing an extra five pounds or more on the new format, support for the +3 was thin.

ZX SPECTRUM +2A
1987

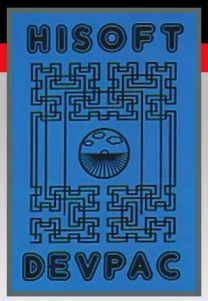
■ Released shortly after the +3, this +2 update shares much of the +3's internal circuitry, with connections for a datacorder instead of disk drive. A new black case differentiates the +2A from the earlier model, although the update meant that some older games were no longer compatible.

ZX SPECTRUM NEXT
2017

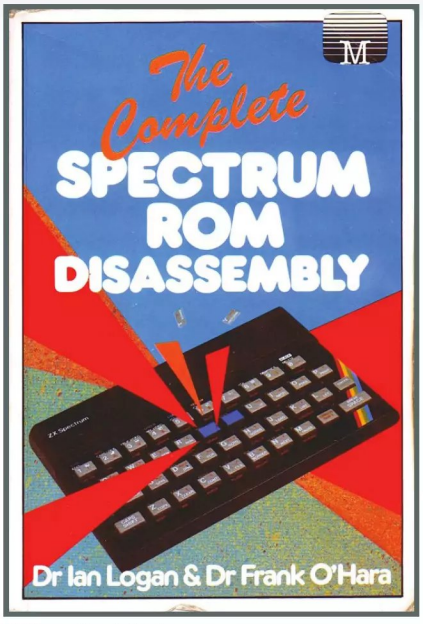
■ A new Spectrum for the 21st century, the ZX Spectrum Next began life in Brazil before a successful Kickstarter campaign, backed by the Spectrum's original designer Rick Dickinson, launched in 2017. The Next utilises an FPGA processor, giving the unit considerably more power.

Image credit: ZX Spectrum 16K, Steve Nunn / ZX Spectrum +2, Gavin Yeo / ZX Spectrum +2A Sean Inglis, ZX Spectrum 48K+ Bill Bertram (bitly/licence_1)

» Sandy White coded *Ant Attack* directly on a ZX Spectrum.



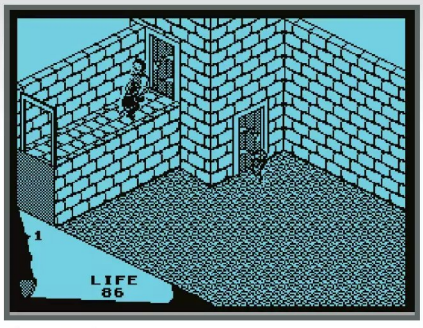
» Hisoft's Devpac is one of many Spectrum assembler utilities.



» Melbourne House's bible for anyone wanting to program on the Spectrum.

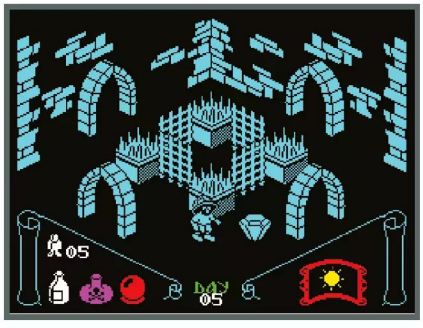
» [ZX Spectrum] Incentive's Freescape engine, transplanted to 1930s Egypt for *Total Eclipse*.

» [ZX Spectrum] Coders like Durell's Mike Richardson created incredible feats on the Spectrum.



» [ZX Spectrum] The brilliant *Fairlight*, a tour-de-force medieaval adventure by Bo Jangeborg.

» [ZX Spectrum] Ultimate's *Jetpac* introduced arcade-style gaming to the Spectrum.



» [ZX Spectrum] The technical cartoon wonder that spawned a genre: *Knight Lore*.

» [ZX Spectrum] There is colour everywhere in *Rainbow Islands* – with a dash of clash.

HOW DO THEY DO THAT?!

JETPAC

■ Smooth, fast and exciting, Ultimate's first game remains one of its most famous, a slick arcade game that hovered miles above all of its competition back in 1983. Coding techniques such as XOR sprites helped make *Jetpac* a technically stunning game despite the simplicity of its gameplay.

KNIGHT LORE

■ Having made its name with fast 2D action games such as *Jetpac* and *Atic Atac*, Ultimate unveiled this technical marvel in 1984. *Knight Lore*'s smooth cartoon-like graphics, welded to the template set down by *Ant Attack*, incited a new genre and dropped jaws everywhere.

I, OF THE MASK

■ In 1985, Sandy '*Ant Attack*' White stunned Spectrum gamers with this high-speed 3D game. Based on a tech demo, the player races around a maze, searching for the parts of a robot. Thanks to its incredible look and speed, *I, Of The Mask* was undoubtedly ahead of its time in these respects.

TURBO ESPRIT

■ *Turbo Esprit* puts the player behind the wheel of the eponymous vehicle, charging around a living and breathing city while attempting to capture drug dealers. Each city's sheer size and activity is astonishing, making it a tremendously immersive experience, whether you're catching criminals or just racing about.

system courtesy of the General Instruments AY-3-8912 chip, the 128K Spectrum should have ushered in a bold new era for the Spectrum software market. While backwards compatible – mostly – in 48K mode, the 128K model brought no further visual improvements at a time when users coveted graphical fidelity. Ponders Sandy, "[Sinclair] should have taken all that revenue from Spectrum sales and ploughed it straight back into a faster, better graphics, backwards compatible Spectrum II. Something like the Spectrum Next!"

Worse, Sinclair delayed the UK launch of its latest computer until the Spring of 1986, mainly due to pressure from retailers over remaining stocks of the 48K+ model. Then came the Amstrad buyout in April of the same year, just four years since the Spectrum's stunning debut. The subsequent Amstrad Spectrums, the 128K +2, +2A and +3 were undoubtedly more practical but lacked the soul and eccentricity of the original rubber-keyed wonder.

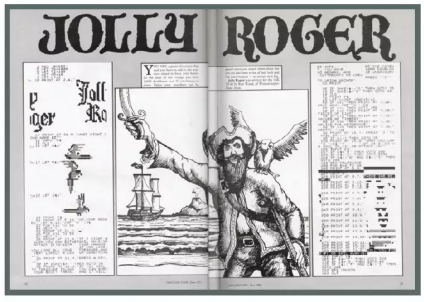
The Spectrum's place as a games machine was always an uncomfortable concept at Sinclair, which pitched the computer as an educational tool more than an entertainment centre. "The [Spectrum] did take on its own personality as a games machine that perhaps Sinclair hadn't anticipated," notes Raffaele. "They could have doubled down on the games angle – but that said, it was a brilliant educational machine for a lot of programmers interested in games!" The Speccy looked like no other computer on the market; it had zero hardware support for many essential computer game functions, such as scrolling and sprites. It had terrible sound, a limited and unexpandable 48K memory, and unusual quirks such as attribute clash; yet it captured a nation's heart as the plucky underdog of unmistakably British design. "From a hardware perspective, I think the Spectrum was nearly perfect considering the price point," notes Raffaele. "A sound chip would have been nice, but I suppose it would have increased the price."

Despite the long nights figuring out the inner workings of the Z80 processor or debugging machine code, most programmers have fond memories of their time with the ZX Spectrum. "That warmhearted little beast means more to me now than it ever has," smiles Sandy White. "Yes, it's a fusion of nostalgia for a misremembered past, and it ties into today's clan of retro enthusiasts and reboots, such as the Spectrum Next. But there's a Spectrum on the desk in front of me right now: that's got to tell you something." For Raffaele Cecco, who made his name on the Spectrum – even as far as penning a regular column for *Crash* magazine – it was the start of a career that continues today. "The fun of learning new things [on the Spectrum] was addictive – I spent hours in front of the screen nearly every day. I learned enough to get my first games job at Mikro-Gen aged 17, before I worked on different machines and started my own company as the industry matured. But throughout it all, I've benefitted from the Spectrum ethos of doing a lot with not very much." ✱

Our special thanks to Raffaele Cecco, Sandy White, Mike Richardson, Jas Austin and Dean Belfield for his technical insight and expertise that made this feature possible. This month, Dean is taking part in the Manchester 10K run in support of the Pancreatic Cancer UK charity, the disease having recently claimed his friend Geoff Follin, part of the legendary Follin brothers team alongside Mike and Tim. Google Dean Belfield Just Giving to support him in this worthwhile endeavour. We also highly recommend Dean's technical blog, breakintoprogram.co.uk

"I'VE BENEFITTED FROM THE SPECTRUM ETHOS OF DOING A LOT WITH NOT VERY MUCH"

RAFFAELE CECCO



» Magazine type-in listings like this were a gateway to games programming for many coders.

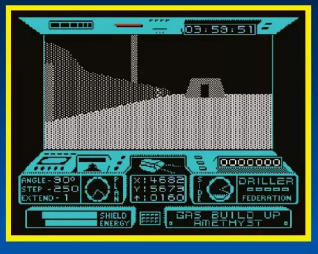
RETRO GAMER'S SEVEN FAVOURITE GAMES THAT PUSHED THE SPECTRUM TO ITS LIMITS

STARSTRIKE II

■ Wireframe games, like *Elite* and the original *Starstrike*, were always popular on the Spectrum. In 1986, the experts in the genre, Realtime, left fans and critics flummoxed with another space shooter, this time featuring filled-in 3D graphics. While not as fast as its predecessor, the visual impact was staggering.

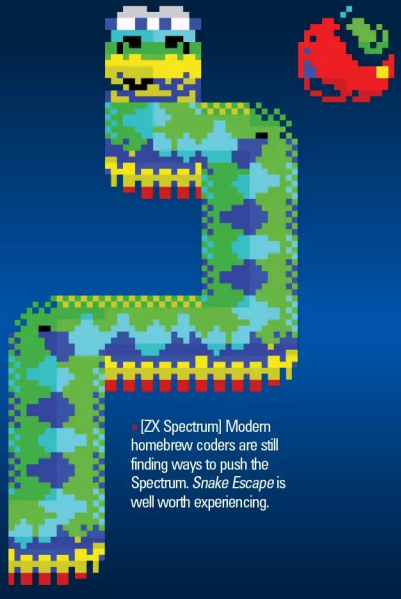
LIGHT FORCE

■ This shoot-'em-up, released in 1986, showed how much Spectrum developers had learned in a relatively short time. Given the cinematic sobriquet of Lasermation, *Light Force*'s technique moves eight pixels at a time, creating a box-like feel to its sprites but with zero attribute clash.



DRILLER

■ Like *Light Force*, *Driller* boasted a named system – Freescape, a blend of freedom and landscape – and overawed everybody on release. In truth, it moves far too slowly (understandably), but the achievement of creating a first-person free-roaming game on the Spectrum was incredible.



» [ZX Spectrum] Modern homebrew coders are still finding ways to push the Spectrum. *Snake Escape* is well worth experiencing.

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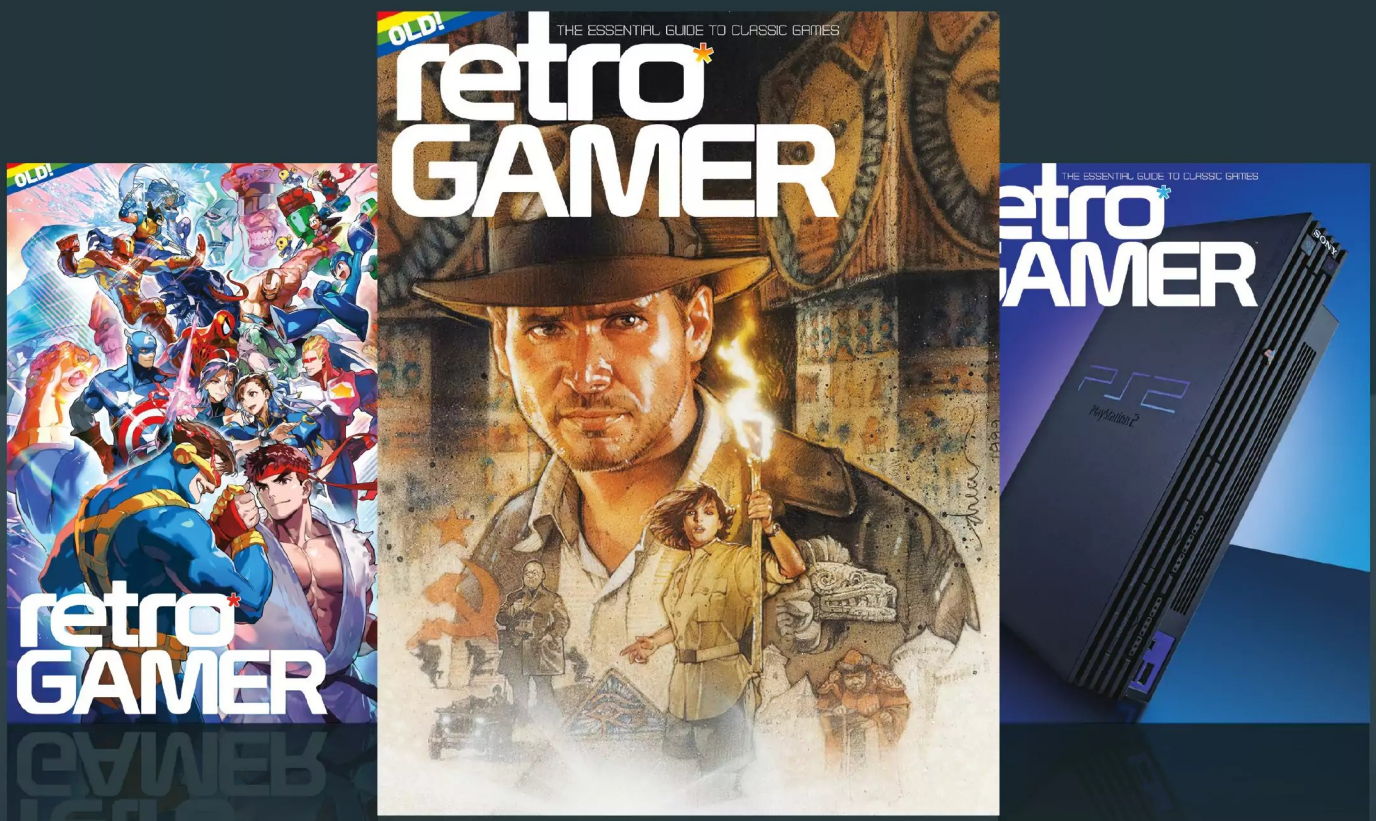

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Cheetah Annihilator

» **PLATFORM:** Various » **YEAR:** 1990
» **COST:** £5.99 (launch), £20+ (today, boxed), £10+ (today, unboxed)

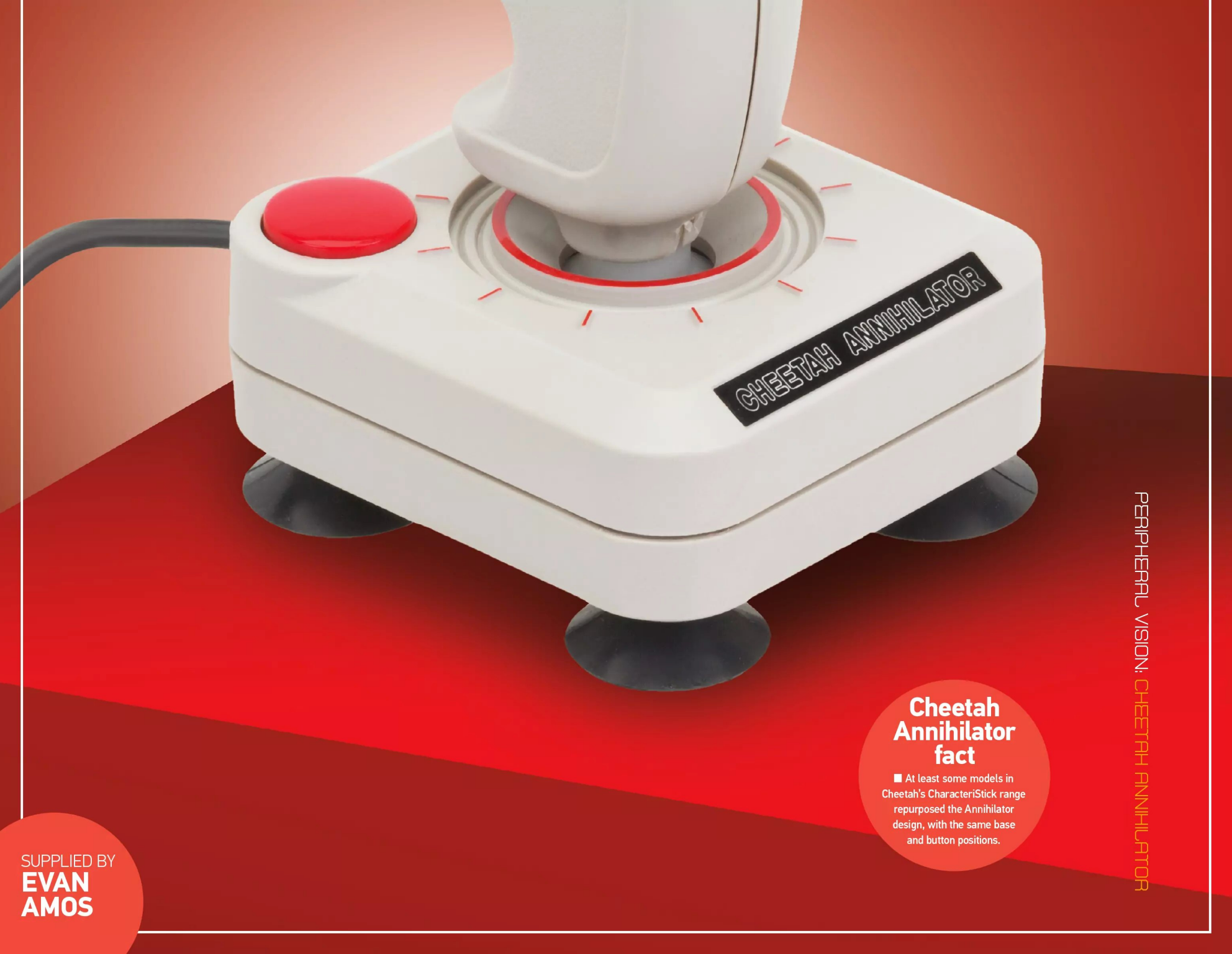
Taken on its own, as a duff joystick from an era in which duff joysticks were in ready supply, the Annihilator would be wholly unremarkable. What makes the stick more interesting is its role in another disaster, the Commodore 64 Games System – the joystick was created at Commodore's behest, as the company realised that it needed a two-button device if it were to successfully repackage its ageing computer as a console. As a result, the Annihilator was part of the standard system bundle.

Cheetah made some decent joysticks over the years, but the Annihilator wasn't really one of them. It came across as a very cheap device – with a long throw and a wobbly shaft (quiet in the back, there), the joystick felt flimsy. What's more, remarkably few games made use of the two-button functionality. Of course, the console was a disaster and was discontinued just months after it launched, so remaining Annihilator stocks ended up finding their way into Commodore 64 computer bundles instead. Unsurprisingly, the device has few fans today.

ESSENTIAL GAME

Flimbo's Quest

There aren't many positive things you can say about the Commodore 64 Games System, but the inclusion of *Flimbo's Quest* on the bundled cartridge was definitely a shrewd move. The colourful platformer stands out as a highlight of the computer's library overall, not just what's available on cartridge. By playing it with the Cheetah Annihilator, you can relive the days you spent playing it with a substandard default joystick, before you inevitably got fed up and spent your money on a more durable, responsive way of enjoying it.



Cheetah Annihilator fact

■ At least some models in Cheetah's CharacteriStick range repurposed the Annihilator design, with the same base and button positions.

SUPPLIED BY
EVAN AMOS

A TRIBUTE TO

DENTON DESIGNS

FOUNDED SOON AFTER IMAGINE SOFTWARE'S DEMISE, DENTON DESIGNS INNOVATED WITH HITS LIKE SHADOWFIRE, FRANKIE GOES TO HOLLYWOOD AND THE GREAT ESCAPE. FORMER DENTON DIRECTOR JOHN HEAP REMEMBERS THE ACCLAIMED STUDIO'S HIGHLY ORIGINAL OUTPUT

WORDS BY RORY MILNE

Although it was formed in late-1984, the first Denton Designs games didn't come out until the following year. As well as the groundbreaking real-time strategy release *Shadowfire* and the sophisticated action title *Gift From The Gods*, 1985 was also the year that it developed an arcade adventure inspired by the band Frankie Goes To Hollywood.

In 1986, Denton followed up *Shadowfire* with *Enigma Force*, which outdid its predecessor in many ways. Just as impressive was the firm's isometric adventure *The Great Escape*, which featured remarkably deep gameplay.

In the subsequent year, the studio continued its run of original concepts with the dimension-hopping shoot-'em-up *Double Take* and its evolution-based title *Eco*. It also produced a fun toy licence called *Madballs*.

1988 saw the firm turn the tables on fox hunting with its run-and-gun *Foxx Fights Back*, and in the same year it embraced 16-bit gaming with conversions of its Spectrum hit *Where Time Stood Still*.

The studio's methodical scrolling shooter *Eye Of Horus* went down well when it was released in 1989, as did its deep space arcade strategy epic *Wreakers* when it came out in 1991.

Denton's final four years focussed on conversions, with it winning plaudits for its adaptations of the platformer/puzzler *Krusty's Fun House* and the top-down racer *Power Drive*. Soon after its release, Denton Designs was acquired by Rage Software, who mothballed the Denton name. However its acclaimed originals are still highly regarded, and would surely do well if they were reimagined for modern day systems. ✱

JOHN HEAP

After working on the Imagine "megagame" *Psyclapse* and developing *Alien* for Concept Software, John joined Denton Designs as a programmer/designer. He later became a director, and after Denton's acquisition by Rage Software he led several projects there. John is now a research software development engineer at the University Of Liverpool.

SHADOWFIRE

ZX SPECTRUM, VARIOUS • 1985

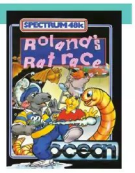
■ Marketed as an adventure game without text, *Shadowfire* is best described as a real-time strategy title. Everything is done by clicking icons, from moving your team of heroes around and fighting enemies to picking up items and checking stats.

JOHN'S MEMORIES

'Big Dave' Colclough was working on the C64 version of *Shadowfire* when I joined Denton Designs. He was quite far on, but I caught up quickly. I was mainly adapting it for the Spectrum, because it had already been designed. The guy who designed it – Ian Weatherburn – had left Denton. He was one of the original founders, but I think he had thrown his dummy out because he wanted to be the boss. *Shadowfire* was his design."

ROLAND'S RAT RACE

ZX SPECTRUM, C64 • 1985

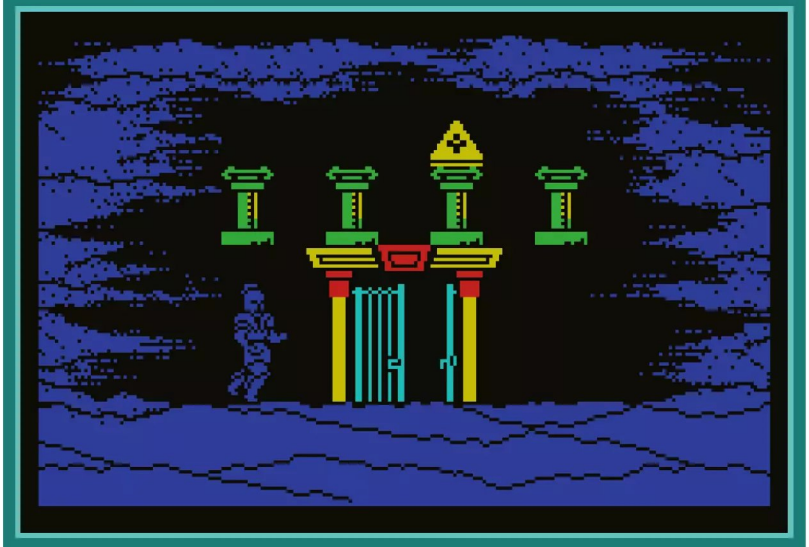


■ Based around the antics of the popular Eighties TV puppet Roland Rat, *Rat Race* is technically a platformer, although one where you use ladders to get from platform to platform rather than jumping between them. The curious challenge set by the game is to assemble a door in the sewer where Roland lives and then find a key to open it. Wellington boots march around and drain your energy on contact, but you can collect food to replenish it. The boots can be stopped in their tracks using a glue gun, but accidentally stepping in its sticky ammo leaves you just as stuck. There are numerous similar-looking stages to explore, so making a map is advised.

GIFT FROM THE GODS

ZX SPECTRUM • 1985

■ There's a lot going on in *Gift From The Gods*, but the majority of its gameplay is intuitive enough not to need much explanation. You can walk or fly around its levels depending on if you want to progress horizontally or vertically. There are monsters to fight with a sword, and although defeating them makes your mission easier you can choose to avoid them if you're low on energy. Standing under dripping water restores this, but it does so quite slowly and you're against the clock. Lastly, and perhaps least obviously, you have to find six items and take them to a specific location. This requires some exploration, but also help from non-player characters, as the six items that are required aren't easily distinguishable from hoards of objects that you don't need.



DIVINE DUTIES THE ENGAGING ARCADE ADVENTURE'S OBJECTIVES

COLLECTION CONUNDRUM

■ Orestes has to find sixteen caverns containing six required shapes hidden in illusions. His sister Electra points to the caverns with the genuine articles.

DEMIGOD DUST-UPS

■ Monstrous demigods can be slain with a sword. Orestes can avoid them, but killing one briefly dispels the illusions from areas containing the shapes he seeks.

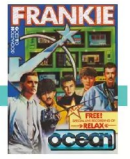
ENERGY CRISIS

■ Fighting monsters is tiring work, and Orestes only has so much stamina when his quest begins. Thankfully, there are energy-restoring drips of water to be found.

CLEVER CONTROLS

■ Depending on the situation, up, down, left, right and fire do different things. In a fight they enable sword attacks and during flight they let you drop items.

FRANKIE GOES TO HOLLYWOOD

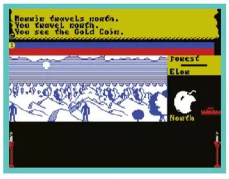


ZX SPECTRUM, VARIOUS • 1985

■ In *Frankie* you play a nobody living in drudgery who wants to become someone. This is done by accumulating Pleasure Points awarded for taking Pleasure Pills, doing good deeds, solving a murder and playing minigames inspired by the band's videos.

JOHN'S MEMORIES

We had this really hot licence, but the publicity people behind the band didn't want them running around and shooting things. It was designed by Kenny Everett and John Gibson. Basically they built up these little scenarios, and it was all a bit wacky. We were quite proud of it. That was until it knocked *Shadowfire* off the top spot! I thought *Frankie*'s little vignettes were quite amusing, like the one with Gorbachev and Reagan spitting at each other. I don't know how it was all scripted out, but it was a very inventive time. There may have been the odd spliff involved."



SORDERON'S SHADOW

ZX SPECTRUM • 1985

■ Although *Sorderon's Shadow* is essentially a text adventure, its use of landscaping of the type found in *The Lords Of Midnight* makes it feel like far more of an interactive experience. For the uninitiated, landscaping is a visual mechanic where far-off features like cities, forests and mountains very gradually become bigger as you move towards them. This gives you a sense of progression as you play through *Sorderon's Shadow*, as do its helpful non-player characters, who give hints on how to complete the nine sub-quests that your mission consists of. These often involve finding, using and trading items. Travelling and fighting with monstrous opponents while doing so causes you to run low on energy, but the game's day/night cycle allows you to rest and regain health after the sun sets.

ENIGMA FORCE

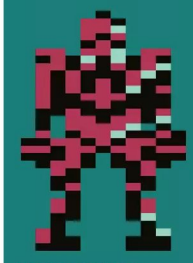
ZX SPECTRUM, C64 • 1986

■ Unlike *Shadowfire*, which plays like a board game with icons representing its heroes, *Enigma Force* has sprites that travel between locations in the style of an arcade adventure. You can directly control the characters with a joystick, but this can negate the game's strategy aspect.

JOHN'S MEMORIES

There was more development for us to do in *Enigma Force* than *Shadowfire* because we designed it. We just took the characters and built the game around them. The Mind Control icon was Dave's and my fault. I think that was a mistake. I didn't think it was a great idea to allow players to control the characters directly with the joystick, because it allowed them to finish it really quickly. *Shadowfire* was more cerebral because it didn't have that; it was more of a real-time strategy game without it."

COOL CHARACTERS THE FORCE'S FOUR ECLECTIC PROTAGONISTS



ZARK MONTOR

■ The Enigma Force team leader is an expert in unarmed combat, which makes him the perfect choice for close quarters fighting. His fluency in multiple languages can come in handy.

SYYLK

■ Syylk is second in command and is built like a tank. The insectoid warrior is heavily armoured and has great stamina, making him ideal to lead the Enigma Force into a firefight.

SEVRINA MARIS

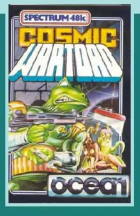
■ Unfairly dubbed the Mistress Of Mayhem, Sevrina Maris is highly skilled with ranged weapons. Her unjust reputation for carnage also ignores her enviable ability to pick locks.

MAUL

■ Combat droid Maul is incredibly slow moving, but this is only because of the weight of his devastating weapons. If you need to take out someone big then send Maul to do the job.

COSMIC WARTOAD

ZX SPECTRUM • 1986



In one respect, *Cosmic Wartoad* is a straightforward and challenging shooter with three distinct, recurring challenges. However its progression mechanics mean that there's a lot to unpack before you get to grips with exactly what the shooting is achieving and how you go about surviving long enough so that you can live to blast another day. First of all, you need to realise that the Cosmic Wartoad is on a rescue mission, and that his captive queen is being slowly lowered towards a chainsaw. You have 90 real-time minutes to avert this catastrophe. You also need to understand that enemies turn from darker colours to lighter ones as you inflict damage, and that when they turn white they're almost done for. It's also crucial that you don't take damage to the point where they turn a darker hue, as that costs you a life. Lastly, there's a grid that you move across one square at a time, where each square that you land on requires you to beat a number of the aforementioned recurring shoot-'em-up challenges in order to clear it.

EPIC ELEMENTS

ASSORTED ASPECTS OF THE NOVEL SHOOTER

GRIDRUNNER

In *Cosmic Wartoad* you have to reach the bottom left of a grid by moving one square at a time and completing the challenges.

MARVELLOUS MINIGAMES

Each square you move to has to be cleared by completing one or more shoot-'em-up minigames.

SUPERB SHORTCUTS

Clearing some squares gets you keys that unlock portals that zap you across multiple squares, which is very handy.

PERFECT POWER-UPS

You acquire parts of a cosmic toolkit and recharge your blaster by clearing specific squares.

THE TRANSFORMERS

ZX SPECTRUM, C64 • 1986

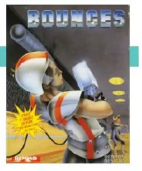
An Autobot tag team have to return pieces of a cube to their base. Collisions with barriers are fatal and battling Decepticons drains their energy, although there are recharge pods, and when badly damaged they can speed off in vehicle form.

JOHN'S MEMORIES

"We got offered *Transformers* by Ocean, and we got told we had to get it out by Christmas, which was just ten weeks away. It had spent money on it, so it wanted it turned around quickly. It was very little time, but that was when we had to do it to get paid. Still, it was probably one of Denton's best sellers. Although I don't think reviewers liked it because it didn't have the artistic integrity that our other games had. Colin Parratt did the Spectrum version and Terry Sanders did the C64 version. Colin had done *Spy Hunter* on the Spectrum beforehand, which was very well received, and this was his second game. We had some reference material to go from – mainly books and diagrams, so it wasn't a question of watching the cartoons or playing with the toys."

BOUNCES

ZX SPECTRUM, C64 • 1986

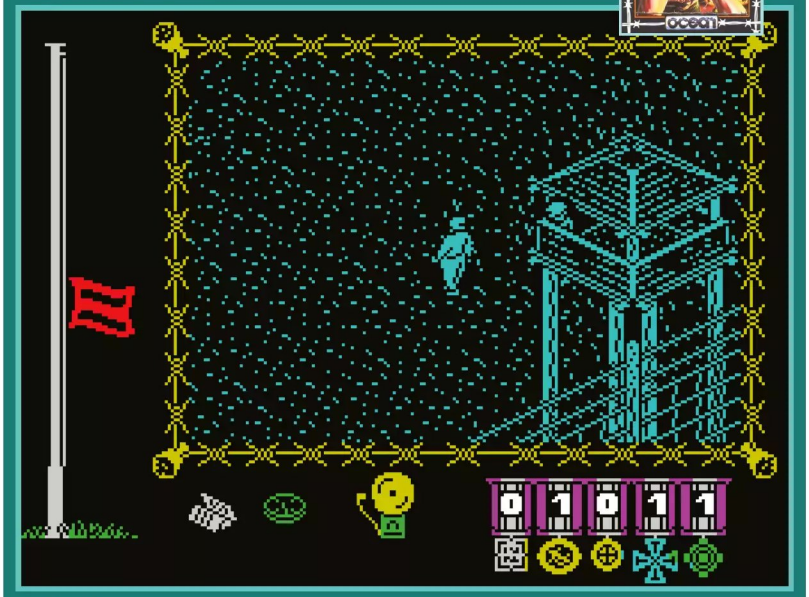


A combination of a sword fight and a ball game, *Bounces* has you playing the role of a medieaval knight fighting a Viking in a contest to win the most points within two 90-second halves. As if this set-up wasn't peculiar enough, both contestants are tied to walls by extending wires. This not only stops you from too easily slashing your opponent into submission, which gains you points, but it also makes it harder for you to score goals, which also increases your points tally. Goals are scored by throwing a ball into slots on your opposite number's side of the arena, and this gets more difficult the nearer you get towards them. However, advancing into enemy territory also gives you a better chance of starting a fight and gaining points that way.

THE GREAT ESCAPE

ZX SPECTRUM, VARIOUS • 1986

■ Based on the escape attempts of WWII allied POWs rather than the film of the same name, *The Great Escape* boasts a wealth of innovations. Rather than accumulating points, you maintain morale by avoiding disciplinary action and arranging your escape.



JOHN'S MEMORIES

There was a line-of-sight mechanism, where if you weren't at roll call and you were caught out of bounds by a guard then the alarms would go off, but you could sneak around apart from those times. As long as you weren't in line of sight of a guard you could actually walk behind him and still be alright. If you wanted, you could watch the game for hours without doing anything and it would just carry on, with the character going to bed and then getting up and so on – but I'm sure nobody did!"

PRISON POINTERS HOW TO MASTER THE EPIC ADVENTURE

DAILY ROUTINE

■ Prisoners have to attend morning roll call and remain in their quarters at night, so make sure you don't get caught ignoring these rules.

OBJECT LESSON

■ There are items to be found in enemy barracks, although some are more useful than others. Trial and error shows which are which.

STEALTH TACTICS

■ If enemy soldiers don't see you sneaking around restricted areas they won't bother you, except if you stray into the glare of a spotlight.

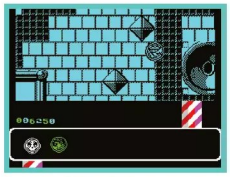
ESCAPE ROUTES

■ You can attempt any number of escape plans, but they won't work without certain items, such as ID papers, a compass and an enemy uniform.

DOUBLE TAKE

C64, ZX SPECTRUM • 1987

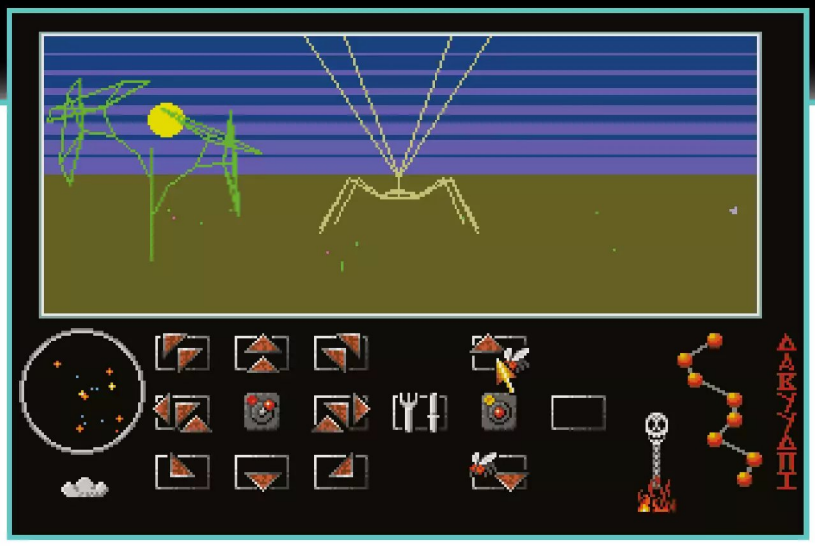
■ Essentially, *Double Take* challenges you to relocate objects while fending off foes with a gun. Its complexity comes from the fact that you are regularly transported from one universe to another. To complicate matters, objects picked up in one universe can get changed into different objects on arrival in the other universe. This can be avoided by stabilising items before switching universes, which is done by locating and entering a mysterious cloud or blasting sufficient enemies. Either way, successful stabilisation is confirmed by the item turning white and flashing. Another matter is working out which objects to move between universes, which room to take them to and where to place them. To help you, a light turns red when items you pick up shouldn't be where they are or turns green when they're where they should be. When you take objects to the correct rooms the light turns green, but it turns red again if they're not dropped in the right place.



MADBALLS

ZX SPECTRUM, VARIOUS • 1987

■ The *Madballs* toys were rubber balls with disfigured faces, and Denton's adaptation quite sensibly focusses on their suitability for bouncing around. The game's top-down playfield consists of islands suspended above a void; your first consideration is to not bounce into this. The Madball you play at the start has to persuade others to join its cause, which oddly enough involves bashing them off the islands. This is tough enough, but you also have to contend with Madballs called bureaucrats that are hell bent on sending your Madball to the void. They can't be co-opted to join you, but you can put them off your tracks by bouncing them off the islands. Making proceedings more interesting are obstacles and equipment such as trampolines, pyramids and oil slicks, which either help or hinder your progress. There's one Madball to conscript per level, with each one becoming playable once recruited.



ECO

AMIGA, ATARI ST • 1987

■ Arguably Denton Designs' most original concept, *Eco* is a simulation of evolution in videogame form. Its iconic 3D wireframe visuals depict a primal world populated by familiar-looking ancestors of modern day creatures and people. Its challenge is first to take control of a lowly form of life before using gene manipulation to gradually move it up the food chain. Ultimately, your goal is to master genetics to the point where you can mould your charge into any of the life forms roaming the game's prehistoric vista. Before any of this, of course, you start with the basics: preying on lesser creatures to fend off starvation while avoiding larger predators and finding a mate. This last task gives rise to the opportunity to unlock and alter one of the genes of your creature's offspring, and with each new offspring you move closer to being able to vary an entire DNA. Once this is done you can employ reproduction to create and control any of *Eco*'s mammals, up to and including primitive humans.

EPIC EVOLUTION SURVIVING DENTON DESIGN'S INNOVATIVE RELEASE

FOOD RUN

■ In *Eco* it's eat or be eaten. Catching prey requires skill, and you have to do it while being hunted and without exhausting your creature.

EASY PREY

■ You start by controlling a small creature that's a snack to the other life forms in *Eco*; you also have to make sure it isn't trodden on.

MATING RITUAL

■ Reproduction is a vital element of *Eco*, so when your life form encounters a member of the opposite sex it is vital that you get them together.

GENE GENIE

■ By tweaking the eight genes of the offspring produced by your current creature you can create a different life form and control it instead.

MUTANTS

C64, VARIOUS • 1987

■ The structure of *Mutants* is similar to that of *Cosmic Battletoad*, although one crucial difference is that its shoot-'em-up minigames are unique from one another instead of regularly recurring challenges. *Mutants* also differs in that it gives you the option to tackle each sub-challenge using one of three accessories. These are rapid fire low-impact torpedoes, slow but steady high-yield missiles and barrier sections that can be dropped to form a shield around enemies. These different options are either effective or ineffective in different minigames, each of which contains self-destruct units that have to be taken to a maze-like control room to be activated. This can be done one unit at a time or all at once, but it's worth noting that contact with the maze and its denizens drains your ship's energy as quickly as the mutants in the sub-games, and once entirely drained you lose a life.

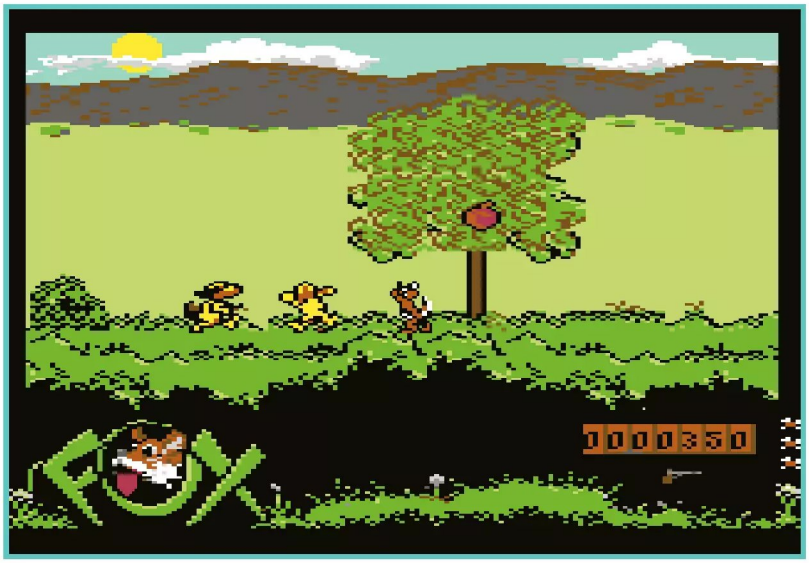
WHERE TIME STOOD STILL

ZX SPECTRUM 128, VARIOUS • 1988

■ In large part an evolution of Denton's earlier isometric adventure *The Great Escape*, *Where Time Stood Still* gives you a party of characters to control instead of just one and an open expanse to explore rather than a confined POW camp. There's also more interaction with non-player characters and a lost world back-story rather than a WWII narrative.

JOHN'S MEMORIES

"I remember I was testing a scenario where Gloria got thrown off a ledge into a chasm. A dinosaur turned up and the natives started throwing spears at it to defend themselves. I was very tired, it was about three o'clock in the morning – and it was crunch time, and Gloria just looked around her and then legged it! Basically her AI said that since she wasn't in the scenario she should find her way out. So she escaped. I would never have dreamt that, but these things happen. I kept trying to reproduce it, but I couldn't get everything to play out the way it had."



FOXX FIGHTS BACK

ZX SPECTRUM, C64 • 1988

■ In an unlikely turn of events, a fox finds itself armed and dangerous, which does his attempts to find food no harm at all. To even the odds, there are hounds with guns, and some even ride around on motorbikes. It's weird, but very entertaining.

JOHN'S MEMORIES

We needed to move things along as projects like *Where Time Stood Still* were killing our company because they took so long to do. So with *Foxx Fights Back* we needed a quick turnaround. I remember the design meeting; it was just a group of us brainstorming. I think banning fox-hunting was on the telly, but instead of a hunt chasing a fox we wanted a fox fighting a hunt with guns! So it was a bit of fun. I ended up programming the Spectrum version. It didn't take too long to do, and then both versions went off to Mirrorsoft just as Maxwell jumped off his boat. Thankfully, Image Works stepped in."

FOXY FUN A LOOK AT THE ENJOYABLE RUN-AND-GUN

ENDLESS EXPLORATION

■ In the course of patrolling acres of a side-scrolling rural landscape you come across hen houses, cottages, farmyards and a village pub!

ASSORTED ARMAMENTS

■ You start off with a lowly pistol, but as you make progress you can upgrade to a shotgun, a rifle, a rocket launcher and a machine gun.

VARIED VILLAINS

■ Hounds from the local hunt are your sworn enemies, and they're a mean shot. Hens, squirrels and badgers lob eggs, nuts and rocks at you.

GATHERING GRUB

■ Food gets split into two categories: rabbits and hens to bolster your energy, and apples, eggs and sausages to bring home to your wife.

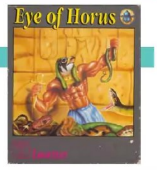
TROLL

ZX SPECTRUM, C64 • 1988

■ *Troll* tasks you with collecting six crystals on any level to construct an amulet, but there's a lot more to it. Its unusually constructed levels add another dimension to its challenge, in that above the playfield where you initially find yourself there's a second one that's upside down. You get to this by jumping on pyramids. Whereas jumping on mushrooms spins a 'wheel of fortune' featuring skulls and geometric shapes. If it lands on a skull you can throw 'Death Holes' that kill your goblin enemies, or your troll, when stood on. If it lands on a shape it lets you throw a hole that transports you to the level that's constructed of those shapes. The goblins try to pile these higher than you can jump in order to trap you, but if trapped a moving spotlight will transport you to a random stage. Goblins drain your energy on contact, but you can collect fruit to replenish it.

EYE OF HORUS

C64, VARIOUS • 1989



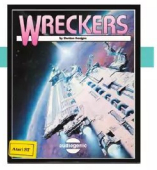
■ Part shooter/part arcade adventure, *Eye Of Horus* has a novel mechanic that lets you alternate between walking around exploring and solving lock-and-key puzzles as a demigod and flying around blasting waves of hieroglyphs after transforming into a hawk.

JOHN'S MEMORIES

I was reading the *Egyptian Book Of The Dead*. There were lots of pages of hieroglyphics, but the actual stories of Set and Osiris, and Horus being the son of the reincarnated Osiris, were interesting. Anyway, I thought it would be really great to have hieroglyphs come to life. I don't think the game worked out quite how I thought it would in my head, but a shoot-'em-up was probably what people wanted. I suppose it was each to their own, because while it was being designed I was working on *Where Time Stood Still*, and it had much deeper gameplay. The thing I was most proud of in *Eye Of Horus* was the blurb on the back cover that I wrote which talked about Isis having it off with Osiris. My description was, 'In their closeness they conceived a son.' I thought that was so classy!"

WRECKERS

AMIGA, VARIOUS • 1991



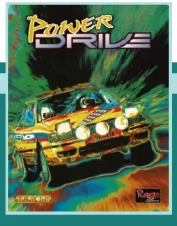
■ Aliens are approaching a space station. You command three officers and any droids you can build. In spore form the aliens can be sucked up, but some cling to the station's hull and need to be cleansed before they get on-board. Those you miss attack the station as well as your team, making repairs another consideration.

JOHN'S MEMORIES

I think the code for the Spectrum *Wreckers* is lost, but there are some screenshots. It was pretty much finished, it could be played. I even got a Crash Smash for it. I was quite surprised by that review. I think *Crash* was just getting a bit desperate for Spectrum games to cover. Back in the day, me and Joffa Smith from Ocean, who's passed, used to be rivals with each other for Crash Smashes. There was a bit of friendly rivalry going on, but we used to have a good laugh about it. His games used to sell so many more copies than mine, but in the end I had more Crash Smashes so it was fine."

POWER DRIVE

AMIGA, PC • 1994



■ The top-down time trials and head-to-head races in this entertaining racer are lent strategy by post-race sections where you can repair and upgrade your vehicle or buy more powerful models. As well as cash prizes there's also collectable cash littered around the courses.

JOHN'S MEMORIES

Power Drive was done just before Rage bought us, it was a fun game. It was a Rage design and we just did the PC and Amiga versions. Rage did the console versions, Tony Pomfret did the original version on the Mega Drive I think. Our programmers were sent rally driving before they started working on it, they had a day doing that and they enjoyed it. It was just a fun day out really, and it also brought the Rage development team and our development team closer together. *Power Drive* had real makes and models of cars that we had to license. We got a guy in to do the 3D renders for the intro who had done a bit of 3D modelling already, then we got the car sprites from Rage. I think what Rage probably did was render the vehicles out in Autodesk or whatever and then just chopped them up into sprites."

KRUSTY'S FUN HOUSE

PC, GAME BOY • 1993

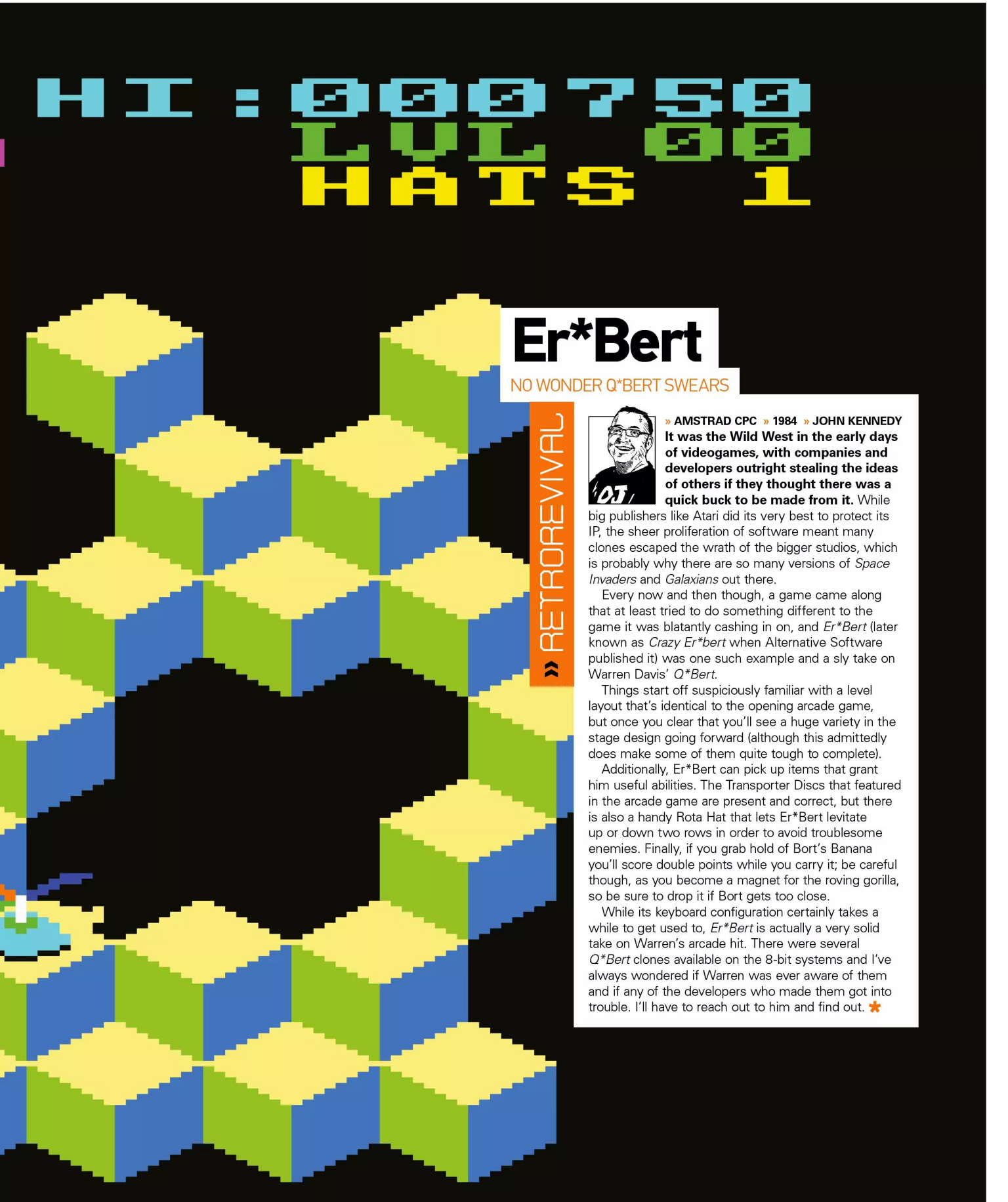
■ The basis for what became *Krusty's Fun House* was an original title called *Rat Race*, which was adapted to make it a *Simpsons* title when Acclaim made that a condition of publishing it. This explains why the goal of the game doesn't exactly fit with the typical activities of the popular *Simpsons* clown. In *Fun House*, you have to lead rats – Pied Piper-style – to their deaths at the hands of well-known *Simpsons* characters manning rat-killing machines. This requires you to take measures such as making steps out of blocks you find lying around, stamping holes in platforms for the rats to fall through and smashing down barriers with destructive bouncing balls. You also have to lead the rats into pipes that suck them from one part of a level to another, before speedily platforming Krusty there so that you can continue guiding them to their destruction when they come out the other end. There's also platforming involved in collecting items that are required to direct the rats and dispatch the game's numerous enemies.

DENTON DENIED

THE DENTON ORIGINALS THAT PUBLISHERS PASSED ON

■ *Gargantuan* was a scrolling shooter that Denton couldn't find a publisher for that was inspired by the legend of Hercules. *Quondam* was another shoot-'em-up, but one with jigsaws. This was signed to Ocean but instead appeared on a *Crash* covertape. Another Ocean signing, *Flashpoint*, was a board game with strategic firefights. It ended up being released on a *Your Sinclair* cassette. *Starace* (pictured), another planned Ocean release, was a vector graphic race title that came out on a *Zzap!64* tape. Lastly, *Shadowfire 3* was planned for PCs and consoles, but it never got past the design document stage.

003900
CHANGE TO



Er*Bert

NO WONDER Q*BERT SWEARS

» AMSTRAD CPC » 1984 » JOHN KENNEDY

It was the Wild West in the early days of videogames, with companies and developers outright stealing the ideas of others if they thought there was a quick buck to be made from it. While big publishers like Atari did its very best to protect its IP, the sheer proliferation of software meant many clones escaped the wrath of the bigger studios, which is probably why there are so many versions of *Space Invaders* and *Galaxians* out there.

Every now and then though, a game came along that at least tried to do something different to the game it was blatantly cashing in on, and *Er*Bert* (later known as *Crazy Er*bert* when Alternative Software published it) was one such example and a sly take on Warren Davis' *Q*Bert*.

Things start off suspiciously familiar with a level layout that's identical to the opening arcade game, but once you clear that you'll see a huge variety in the stage design going forward (although this admittedly does make some of them quite tough to complete).

Additionally, Er*Bert can pick up items that grant him useful abilities. The Transporter Discs that featured in the arcade game are present and correct, but there is also a handy Rota Hat that lets Er*Bert levitate up or down two rows in order to avoid troublesome enemies. Finally, if you grab hold of Bort's Banana you'll score double points while you carry it; be careful though, as you become a magnet for the roving gorilla, so be sure to drop it if Bort gets too close.

While its keyboard configuration certainly takes a while to get used to, *Er*Bert* is actually a very solid take on Warren's arcade hit. There were several *Q*Bert* clones available on the 8-bit systems and I've always wondered if Warren was ever aware of them and if any of the developers who made them got into trouble. I'll have to reach out to him and find out.

GAUNTLET IV

A bunch of Japanese students, including a young man named Naoki Horii, fell in love with Atari's coin-op classic Gauntlet… and a few years later, they just start porting Ed Logg's hoary dungeon adventure to the Sega Mega Drive and by doing so, created the definitive adaptation

Words by Thomas Nickel

INFO

- **» ORIGINAL RELEASE:** 1985
- **» MEGA DRIVE RELEASE:** 1993
- **» CONVERSION CODER:** TETSUYA ABE
- **» AVERAGE SCORE:** 92%

» When working on *Gauntlet IV*, Naoki Horii mainly worked on adapting the graphics of the original game to the Mega Drive. Today, he's the CEO of renowned developer M2, one of the world's first and foremost experts on ports of classic games to modern hardware. He's also credited as the producer of almost every M2 release.

There is a widely held belief that Japanese players and creators are not particularly fond of Western-developed games. Needless to say, this is certainly not true. Atari's *Breakout* had a profound impact on the Japanese industry, the creators of *Dragon Quest* and *Final Fantasy* were really into *Wizardry* and the 1985 arcade hit *Gauntlet* left such an impression on a couple of students that they decided to start their own company. That company was M2 – a studio that is known today as one of the finest houses when it comes to brilliant ports of classics to current systems.

"I was still in junior high school when I first saw *Gauntlet*," Naoki Horii, CEO of M2 tells us. "It was in Game Boutique Takadanobaba in downtown Tokyo, far from where I lived. I found the gritty heroes soberly progressing through dimly lit dungeon corridors to be insanely cool." Despite, or maybe because of his young age, Horii's mind began turning. "I desperately wanted to play this game by any means available. What could I do to achieve that?" However, at this time, playing games, rather than creating them himself, was on Horii's mind – and the best way to play games in those days was the Sharp X68000 home computer; a powerful and expensive device, that was home to the best arcade conversions of its time. "I was just barely admitted into what could narrowly be called one of the better schools and my parents were concerned about my future," Horii explains. "So I took advantage of that by sweet-talking them into buying me an X68000, saying, 'If you let me have one of these, I shall surely apply myself to the duties of a student.'"

> "Our dear programmer developed a habit of going into deep thought while standing on his head when problems piled up"
> NAOKI HORII

Instead, Horii threw himself into games even more and this is when the idea to bring his beloved *Gauntlet* to the X68000 began taking shape: he gathered a few like-minded individuals around him and together, they started working, as Horii says. "We began with no documents or sources to rely on, so the graphics and the level layouts at this stage were something Tetsuya Abe, our programmer, just casually fashioned out of his memory. After all, he was another guy who skipped school and sank an eternity into *Gauntlet*, so those few levels he created were perfectly accurate, and the controls felt almost identical to the arcade version."

This project could have ended like those of many enthusiastic kids plugging away on their computers – slowly petering out as new, more exciting things come along. But Horii, Abe and their crew did not lose their enthusiasm and went all in. As Atari Games subsidiary Tengen had an office in Tokyo, they managed to get an appointment and hand in their work. "The game was generally playable at that time, but there was a glitch caused by our incomplete implementation of a technique called sprite doubler which would enable us to show as many characters on-screen as the original did," Horii says. "It succeeded in achieving that goal, but it also sometimes caused horizontally aligned flickering noises to appear. We just handed over a floppy disk that contained the game, and after that all we could do was pray that someone knowledgeable would take a proper look at it."

That is what happened: Jun Amanai from Tengen noticed the flickering noises and reported that he suspected the glitch was caused by an attempt to address the problem of the limited number of sprites, which he thought of as crude, but ambitious. So one day, Horii got a call from Tengen, encouraging him to keep working, and that when the game was done, Tengen would take care of sales. But Horii and his team were their own

» [Mega Drive] The graphics may look simple, but the game sports insane numbers of sprites.

» [Mega Drive] Enemies always head in the heroes' direction and try to surround them whenever possible.

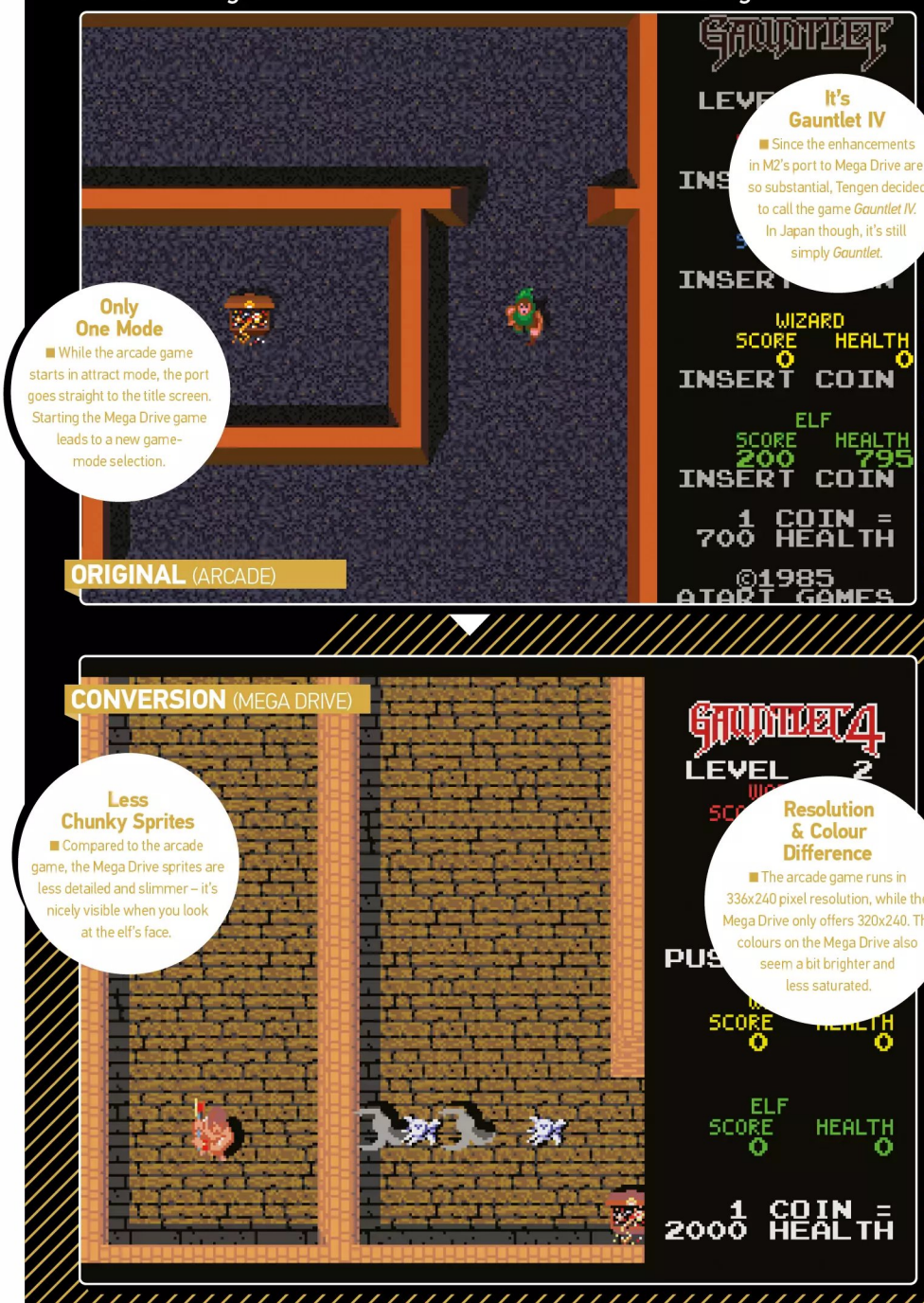
» [Mega Drive] *Gauntlet IV* is best played as a team, thankfully the game supports multiplayer-adapters.

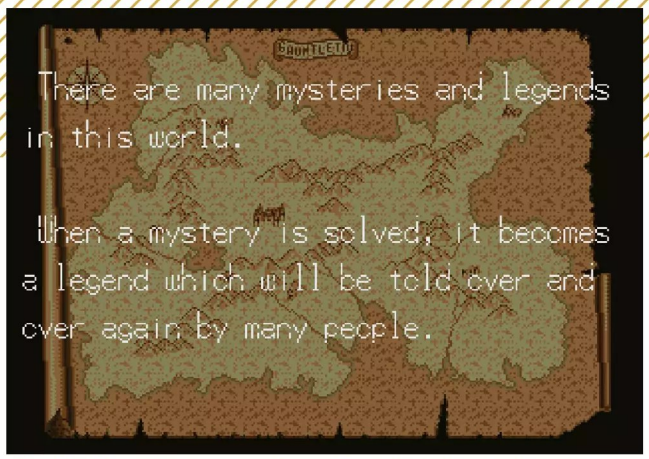
toughest critics and some things with their adaptation just didn't sit right. While tiles in the original *Gauntlet* are 16x16 pixels, character-sprites were 24x24 pixels large, giving the game its crowded feel. This was not achievable on the X68000, where 16x16 pixels was the maximum sprite-size and while the team did think of solutions, none of them proved doable.

Sega's Mega Drive on the other hand could handle sprites of up to 24x24 pixels in size and as the team was already well acquainted with the 68000 and Z80 chips found in Sega's console, they saw a better way to realise their ambition. So, as Horii puts it, "We got down on our knees and begged Tengen, who had previously promised us to publish our planned X68000 *Gauntlet*, to allow us to change our target platform. It would be our first creation, and we wanted it to be the best game we could make." Tengen agreed, and so Horii and his team were in high spirits when the development for the Mega Drive started. The team's equipment included: an X68000 for coding, a Sega Mega Drive, a Development ROM board (4 megabits) and a ROM eraser. Later, the team also used Mega Drive development hardware and a larger 8Mb-Development ROM. The team worked in a small apartment in Tokyo's Ikebukuro district, often subsisting on a semi-healthy diet at the local fast-food-chain Mosburger.

HOW ACCURATE IS IT?

How the Mega Drive version differs from the arcade original

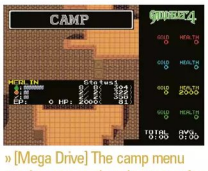

ORIGINAL (ARCADE)
Only One Mode
■ While the arcade game starts in attract mode, the port goes straight to the title screen. Starting the Mega Drive game leads to a new game-mode selection.
It's Gauntlet IV
■ Since the enhancements in M2's port to Mega Drive are so substantial, Tengen decided to call the game *Gauntlet IV*. In Japan though, it's still simply *Gauntlet*.
WIZARD
SCORE HEALTH
0 0
INSERT COIN
ELF
SCORE HEALTH
200 795
INSERT COIN
1 COIN = 700 HEALTH
©1985 ATARI GAMES
CONVERSION (MEGA DRIVE)
Less Chunky Sprites
■ Compared to the arcade game, the Mega Drive sprites are less detailed and slimmer – it's nicely visible when you look at the elf's face.
Resolution & Colour Difference
■ The arcade game runs in 336x240 pixel resolution, while the Mega Drive only offers 320x240. The colours on the Mega Drive also seem a bit brighter and less saturated.
GAUNTLET 4
LEVEL 2
SCORE 0
ELF
SCORE HEALTH
0 0
1 COIN = 2000 HEALTH


There are many mysteries and legends in this world.
When a mystery is solved, it becomes a legend which will be told over and over again by many people.

» [Mega Drive] M2 put a little intro sequence at the start of Quest mode to let players in on the game's premise.

» [Mega Drive] Various challenging towers have to be completed in order to progress in Quest mode.

> "We began with no documents or sources to rely on, so the graphics and the level layouts at this stage were something Tetsuya Abe, our programmer, just casually fashioned out of his memory"
>
> NAOKI HORII



» [Mega Drive] The camp menu can be accessed on the press of a button in the new Quest mode.

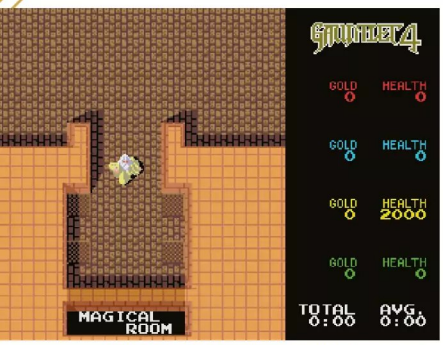
▶ Developing a game with such simple means in those days worked like this: the programmer writes code on the PC and assembles it and burns the resulting binary onto the ROM, using a writer. Said ROM board was inserted into the cartridge slot of the Mega Drive (or the development hardware) and then… hopefully the game ran. If there was a bug, it was back to programming and fixing the code, based on speculation about the cause – then, rinse and repeat.

Working with the ROM eraser came with a special set of challenges, as Horii explains. "Every time we burned the program, we had to initialise the ROM with the ROM eraser, but despite its dignified name, it was merely a device that applied UV light to erasable ROMs, and there was no indication whether it actually succeeded in erasing the data at all. That brought about a highly dialogic working environment where we were every so often complained to by the ROM writer stating 'Beep-beep-beep!' (translation 'ROM not empty WTF'). Meanwhile, our dear programmer developed a habit of going into deep thought while standing on his head when problems piled up."

» [Mega Drive] Talking to the shop-owners may yield a bit of interesting information apart from shopping opportunities, so listen to what they have to say.

Naoki Horii himself took charge of *Gauntlet IV*'s graphics. This included drawing pixel art, which he had done already on the X68000 version, but the Mega Drive's four limited palettes made for a real challenge: cramming all the details and palettes of the arcade game into the Mega Drive looked simply hopeless. Still, the promise of larger sprites kept Horii going until he managed to have all four player characters share a single palette. With smart decisions and clever trickery, Horii managed to cram heroes, enemies, objects and tiles into the four palettes – and noticed to his horror, that he all but forgot about the status texts on the right side of the screen. "I ended up tearfully entreating the programmer for help, and we solved this conundrum by changing colours stored in a single slot reserved for this purpose in short spaces of time after the beam finished drawing one line of the status texts and before it began drawing another. This was how I was tormented by the four-palette limitation to the very end."

After a lot of hard work, Horii and his team had a pretty respectable version of *Gauntlet* running on Sega's Mega Drive. Only… by this point, *Gauntlet* was a pretty old game and times had changed. Horii felt the result was a bit anti-climactic and after Tengen suggested new game modes, this is exactly what the team created. Inspired by *Bomberman* sessions with his friend Yuzo Koshiro, Horii introduced the Hudson classic to his team and together they came up with three new modes: Quest mode, Battle mode and Record mode, the first of which is certainly the most impressive addition, turning the chaotic arcade game into an action RPG with proper progression. "Quest mode was inspired by the RPG mode of the PC Engine version of *Pro Tennis: World Court*, which I regarded as quite an innovation at the time," Horii explains. Implementing these modes took



» [Mega Drive] Quest mode starts in a hub where various shops and the four towers can be accessed.

another year and required an upgrade from a 4Mb to an 8Mb cartridge.

That leaves one final aspect: *Gauntlet*'s music. The original game had no in-game music, but that wouldn't fly in the Nineties. After discussing the matter with Tengen's Jun Amanai, fate struck once again. "Making my way home from Tengen's office, I happened to drop in on Messe Sanoh, a game store once located in Akihabara," Horii says. "On its overseas games floor I unexpectedly bumped into Mr Masaharu Iwata, the musician who is now known for his work for games like *Ogre Battle*. Our conversation eventually got quite lively and this happy coincidence gave me a chance to consult Mr Masharu Iwata and Mr Hitoshi Sakimoto over my problem, which resulted in *Gauntlet* getting an immersive soundtrack to enhance the game. When they gave me the data for a piece called *Sortie*, I was so overwhelmed by its musical grandeur, that I was positively afraid that my graphics would do it an injustice, but at the same time, I also felt like the game suddenly took a great leap toward being complete."

Naoki Horii also vividly remembers the day of *Gauntlet IV*'s release. "Out of sheer exhilaration, I roved through every store that sold the game in Akihabara, absorbing every detail and sending telepathic messages to those who looked like they might buy *Gauntlet* (based purely on my preconceptions)." Looking back, Horii states, "Not only was I given a chance to recreate and modify a game I love to my own heart's desire, but I was even allowed to submit it to the judgement of the general public. *Gauntlet* and the Mega Drive kicked off my wonderful life as a games developer and I feel I haven't grown up at all since then."

MORE M2 CONVERSION MASTERY

Since Gauntlet IV, beefed-up conversions have become M2's speciality

SEGA AGES 2500 SERIES VOL. 33: FANTASY ZONE COMPLETE COLLECTION

For the final entry in Sega's *Sega Ages 2500 series*, M2 went all-in and didn't just deliver flawless ports of every *Fantasy Zone* previously available; it created bespoke arcade hardware, made a beefed-up version of the Master System-exclusive *Fantasy Zone 2* and ported this back to the PS2.

NAMCO MUSEUM ARCHIVES

In this collection for PS4, Xbox One, Switch and PC, M2 went through Namco's impression NES/Famicom catalogue and decided there were some other games it also wanted to see on Famicom. With that in mind it produced all-new ports of *Gaplus* and *Pac-Man Championship Edition* – just because it could!

ALESTE COLLECTION

In this still Japan-exclusive release for Switch and PS4, M2 didn't just convert the often obscenely expensive *Aleste* games from the Master System and Game Gear, it also made the all-new, stunningly brilliant *GG Aleste 3* that can actually run on real Game Gear hardware.

DARIUS EXTRA VERSION

When it worked on the Mega Drive Mini, M2 added a few unexpected games, the best of which is an amazing homebrew port of Taito's first *Darius*. Then M2 went back and added another spit of polish for a brilliant release on a 32Mb cartridge for Mega Drive.

CASTLEVANIA DOMINUS COLLECTION

For this rather recent collection of the DS' three superb *Castlevania* games, M2 not only adapted the dual-screen setup and the touch-screen functions for current systems, it also added a whole new remake of the arcade dud *Haunted Castle*, turning the series' nadir into another classic that's well worth playing. M2 has made several compilations for Konami and this is the third *Castlevania* collection from the studio, as it has also adapted the 8- and 16-bit console *Castlevanias*, as well as the three Game Boy Advance releases.

retro* GAMER's FAVOURITE...

QUIZ GAMES

Which quiz videogames do we enjoy firing up from time to time? Do you need to phone a friend or do you just need to take a look at the answers spread across these two pages?

BUZZ!: THE MUSIC QUIZ

■ With four buzzer controllers in the box, *Buzz* took quiz games to another level. It encourages anyone to play by removing any potential fears competitors may have about handling a gamepad. By concentrating the quiz on 50 years of music, it also crosses generations and makes for a lively experience. Different modes, from Fastest Finger to Pass The Bomb, also mix things up a bit. It was followed by many sequels.

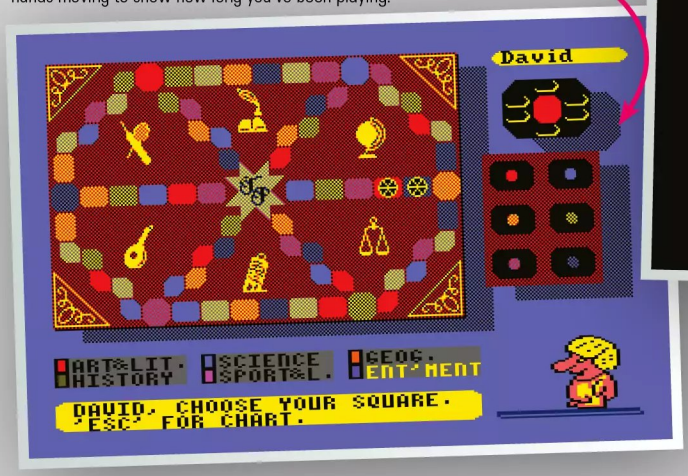
1:WHICH ARTIST HAD A HIT WITH THIS SONG?
JENNIFER LOPEZ FEAT. JADAKISS & STYLES
ASHANTI
JENNIFER LOPEZ FEAT. JA RULE & CADDILLAC TAH
BLACK EYED PEAS
4.68

POWERPLAY: THE GAME OF THE GODS

■ Part board game, part quiz, Arcana's offering is based around Greek mythology and it allows up to four players to answer a series of multiple-choice questions while moving warriors around a chequerboard. Debuting on the BBC Micro in 1985 and set on Mount Olympus, it's still fast and furious fun, particularly when players land on an occupied square and compete to provide the quickest answer.

TRIVIAL PURSUIT: GENUS EDITION

■ Five years after the board game was released, Domark created faithful videogame versions for a variety of platforms, all starring a little quizmaster called TP who would pace up and down as he tested the players' knowledge. With thousands of questions, including many based around images and music, it has some neat little features, like throwing a dart to select a category and the clock's hands moving to show how long you've been playing.

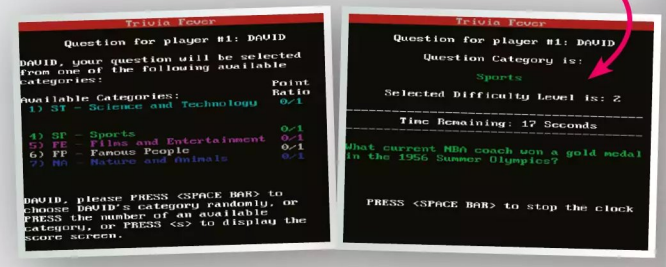


PUB TRIVIA SIMULATOR

■ As befitting a Codemasters budget title, *Pub Trivia Simulator* by Andrew and Peter Williamson is a jovial affair with jaunty title music and bold, colourful graphics. As the name suggests, it is a riff on the trivia machines found in many pubs up and down the country and the aim is to win as much cash as you can by answering multiple-choice questions. (It's not real cash, by the way.)

TRIVIA FEVER

This game isn't much to look at but with a good mix of questions and three difficulty levels, it is both fun and adaptable – providing more than enough fuel for a challenging quiz evening. Page upon page of instructions explain the concept – essentially one player is the Master Of The Game and determines if others are answering correctly – and it is also possible to handicap accomplished quizzers.

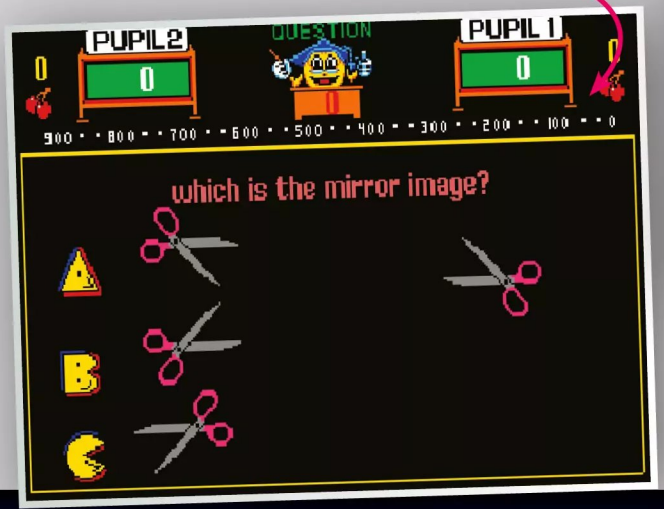

Trivia Fever
Question for player #1: DAVID
DAVID, your question will be selected from one of the following available categories:
Available Categories:
1) ST - Science and Technology
4) SP - Sports
5) FE - Films and Entertainment
6) FP - Famous People
7) NA - Nature and Animals
DAVID, please PRESS <SPACE BAR> to choose DAVID's category randomly, or PRESS the number of an available category, or PRESS <S> to display the score screen.
Trivia Fever
Question for player #1: DAVID
Question Category is:
Sports
Selected Difficulty Level is: 2
Time Remaining: 17 Seconds
What current NBA coach won a gold medal in the 1956 Summer Olympics?
PRESS <SPACE BAR> to stop the clock

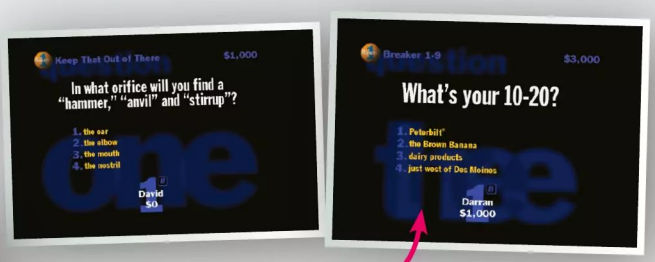
SMARTY PANTS: TRIVIA FUN FOR EVERYONE

The Wii was the epitome of a family friendly console so it was no surprise to see it blessed with a fair few quiz games. Electronic Art's *Smarty Pants* is a top pick because it makes good use of the Wiimote and bombards players with question after question. With some nice bonus rounds and a few varied modes to get stuck into, it's still good fun to play today.

PROFESSOR PAC-MAN

Professor Pac-Man wasn't a big hit in the arcades but with so many other distractions around in 1983, we're not entirely surprised at that. Even so, that doesn't mean you can't have some enjoyment with this image-based quiz, burning through the 500 questions that are built into the game before Pac-Man ever gets a chance to munch on his pellets.



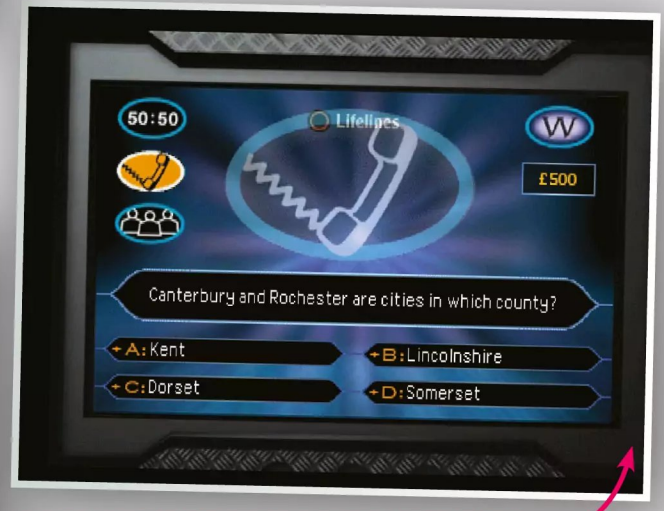


YOU DON'T KNOW JACK

This funny game was a pivotal moment for quiz titles simply because it was so wacky and laden with sarcasm. Fast-paced, full of little jingles and with a wonderful host who drives the quiz forward with enthusiasm, it has a huge number of off-beat categories and questions that come in at you sideways thanks to its amazingly sharp, witty writing.

JEOPARDY!

Although *Jeopardy!* may be a show you've heard about but have never seen, don't let that put you off trying the debut NES version. Essentially, all you're doing is testing your general knowledge by phrasing answers in the form of a question while trying to outdo a couple of opponents. The hardest part is entering the text before your time runs out.



WHO WANTS TO BE A MILLIONAIRE?

This game was one of the most popular titles of 2000 and that's entirely down to the phenomenal success of the show. Although you are sure to get tired of trying to answer 15 questions correctly to win, er, precisely nowt, this remains a faithful rendition of the popular TV programme with great narration from the show's Chris Tarrant.

THE MAKING OF SUBWAR 2050

IN THE KNOW

- **PUBLISHER:** MICROPROSE
- **DEVELOPER:** MICHAEL POWELL (PARTICLE SYSTEMS) & MICROPROSE
- **PLATFORM:** IBM PC, AMIGA A1200, CD32
- **RELEASED:** 1993/94
- **GENRE:** 3D STRATEGY SIMULATION

DEVELOPER HIGHLIGHTS

POWERDROME (PICTURED)
PLATFORM: ATARI ST, AMIGA
RELEASED: 1988

F-19: STEALTH FIGHTER
PLATFORM: ATARI ST, AMIGA
RELEASED: 1990

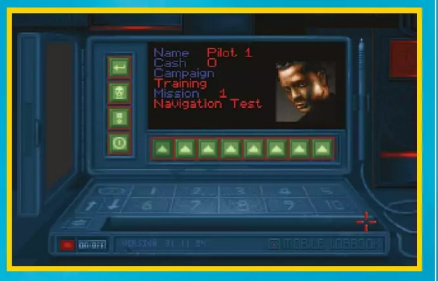
I-WAR
PLATFORM: PC
RELEASED: 1999

MICROPROSE UK'S SUBWAR 2050 WAS A UNIQUE BLEND OF SUBMARINE WARFARE, SIMULATION, AND STRATEGY SET IN THE NOW NOT-TOO-DISTANT FUTURE. MANNING AN ADVANCED FIGHTER SUB AND ACTING AS A MERCENARY, THIS MISSION-BASED 3D UNDERWATER GAME FOR THE PC AND AMIGA SENT THE PLAYER BENEATH THE WAVES...

WORDS BY RICHARD C HEWISON

In early 1990, MicroProse UK was gathering a talented group of in-house UK developers to convert its US parent company's simulator products to the Amiga and Atari ST platforms for European consumption. Poaching key programmers and artists from other UK developers included head-hunting artist Mark L Scott, to begin working on a conversion of *F-19: Stealth Fighter*. "It was always more interesting creating new artwork though, instead of adapting art based on someone else's work," says Mark, which was fortuitous for him because MicroProse was also keen to work with the best third-party development teams in the UK, lending its recently formed in-house developers and artists to those projects as and when called upon.

One such development team was Particle Systems. Managing directors Michael Powell and Glyn Williams were also 3D experts. Glyn had already written or co-written several 3D games, including *Cholo* for Firebird on 8-bit computers, and *Warhead* for Activision. Michael had previously created the 1988 futuristic 3D racer *Powerdrome* for EA and had also been working with that publisher on an ultimately abandoned 3D light-sourced and Gouraud-shaded fighting game called *Cyber Fight* for the PC. "Glyn and I had been friends at school," explains Michael. "We then went to different universities, and he was the first to start in the games industry. Before we started Particle Systems, we worked on our own games but certainly bounced ideas off each other. We knew we were going to join forces, so we labelled our last solo games under the Particle Systems name, to give us a head start."



» [Amiga] Choose your pilot's avatar and name him before you embark on your first mission.

Michael's first Particle Systems game design emerged in early 1992, although at the time the collaborative name he and Glyn were using was Vertechnicon. Thankfully that changed before *SubWar 2050* was published. Michael was considering several possible design ideas at the start, and one with an aquatic theme was particularly appealing. "I always fancied the idea of doing an underwater game, but didn't really want to do a slow and stealthy sub game along realistic lines," says Michael. "I'd been doing some research and there was this Russian torpedo using super-cavitation technology which could go over 180mph underwater, so I had this idea of doing super-fast subs with advanced tech that could present the environment to the pilot as a VR-type display. This was well before any consumer VR although I did mention VR at the time in hope more than expectation!"

Michael concluded that a 3D texture-mapped terrain and a technique that faded

MARK L SCOTT

After leaving MicroProse in late 1993, Mark joined the Psygnosis Southwest office in Stroud, before departing to work on videogame artwork in the US.

MICHAEL POWELL

After *SubWar 2050*, Michael wrote the SNES console arcade game *Vortex* for Argonaut, utilising the Super FX chip's 3D capabilities.

out the landscape ahead of the player was perfectly suited to an underwater scenario. MicroProse also had previous experience of publishing submarine games, releasing two very successful *Silent Service* games between 1985 and 1990, and enough time had passed for the publisher to consider another. "I think *SubWar 2050* was heading to Electronic Arts, but we were offered the chance to have a meeting with Michael," explains MicroProse UK producer Pete Moreland. "So, I drove to his house and managed to persuade him that we would do a better job!"

That opportunity came via Michael's agent Jacqui Lyons at Marjacq Micros, who felt that his design was a good fit for that publisher. Being able to offer in-house assistance on the graphics and other development support from the publishing side helped sweeten the deal. It might also have been significant that Michael had recently played a MicroProse PC strategy game based on Tom Clancy's *Red Storm Rising* novel.

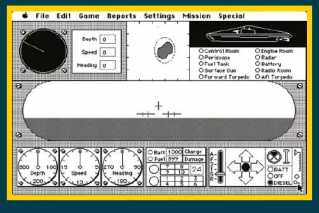
With a contract signed, Michael set to work. MicroProse UK's associate art director Mark L Scott headed up an internal team of graphic artists, and they were tasked with creating bitmap graphics for the game. The art brief was fairly fluid, with no detailed descriptions to work from, other than a list of elements and screens that the game needed. The requirements included various 2D screens, narrative screens featuring animated sequences, and map screens to be used in the various game scenarios. The MicroProse tools of choice for art back then were Deluxe Paint V and Autodesk Animator for the PC.

» [Amiga] The main menu is where you choose and configure your missions.

"Eddie Garnier, Martin Smillie, and Trevor Slater all did bits and pieces," recalls Mark. "Trevor is sadly no longer with us, but he did a lot of the animations in *SubWar*. He was a big fan of *RoboCop* and so he had these big walking machines in the docking area and similar robot machines. Back then, if you were a videogame artist you had to have seen three or four movie series, including *Alien* and *Star Wars* and a few others, and they were very influential," he adds. Some of the sketches Mark produced for early art ideas clearly fell into that trap, with one in particular that Mark admits "[...] was clearly a rip off of the Stormtrooper helmet from *Star Wars*".

SUBMARINE DEEP DIVES

MEET THE MAIN CHALLENGERS FOR UNDERWATER SUPREMACY IN THE EIGHTIES AND NINETIES



GATO

SPECTRUM HOLOBYTE, 1984

■ *Gato* beat MicroProse's *Silent Service* out of the docks by a year, released in 1984 initially just for the IBM PC and later for the Apple Macintosh. It simulated a United States Navy Gato-class submarine during the Pacific campaign of World War II, hunting Japanese battleships.

688 ATTACK SUB

ELECTRONIC ARTS, 1988

■ EA's game gave players a choice of commanding a United States 688 or Soviet Alfa submarine. Regardless of the side chosen, players had a selection of missions to choose from and the difficulty could be set to beginner or standard.

WOLFPACK

THREE SIXTY, 1990

■ Novalogic's game gives the player the choice of commanding either a United States Navy Destroyer-class Battleship or a German U-boat during World War II. Aside from various pre-defined missions to choose from, *Wolfpack* also included a construction set to create your own.

SILENT SERVICE II

MICROPROSE, 1990

■ Not only did *Silent Service II* update the original release, but it also offered additional game features that gave players the chance to pursue an entire United States Navy war career throughout the Pacific World War II campaign against the Japanese fleet.

STRATEGIC TIPS

HOW TO BEAT THE MISSIONS AND SURVIVE THE SUBWAR

GAME TRAINING

■ Begin by accepting the initial training missions. These give you the chance to get accustomed to the sub's responsiveness underwater, as well as learn to understand the various readouts and navigate your way to the various waypoints that you must follow to reach each objective.

STEALTHY MANOEUVRES

■ To avoid detection by enemy subs, learn the art of moving quietly and slowly. Whilst using active sonar to gain information about your opposition is useful, the downside is that using it also makes your sub easier to find. Remaining undetected is important and will gain you a bonus at the end of a mission.

TESTING THE WATERS

■ The boundaries between warm and cool water are called thermal layers and they reflect sonar. *SubWar 2050* shows these layers in the HUD and so waiting in a layer colder than your target will make your sub less detectable, helping you stay hidden.

PRIORITISE YOUR REPAIRS

■ Your sub can automatically begin making repairs to damaged systems, but it can only do this one system at a time. You should strategically prioritise which systems are repaired first, but the choice is down to you which ones to choose over others.

MAKE USE OF YOUR WINGMEN

■ Some *SubWar 2050* missions give you assistance in the form of wingmen. Don't expect them to behave particularly intelligently, but assigning simple instructions like attacking will give you more time to achieve your objective, even if it only delays the inevitable underwater combat.

▶ Despite the futuristic plot, creating believable artwork for the game required a large amount of subject research, and in those pre-internet days that meant only one thing. "We hopped on a train and went to the big library in Bristol to look for reference pictures," remembers Mark with a smile. "We then surreptitiously took photographs of images in books whilst we were there. We also scanned in (at a very low-resolution) photos from other sources and then redrew them, and at one point we ended up buying a subscription to *National Geographic* magazine."

To further enrich the game design with a realistic environment, Michael went on a trip to the Institute Of Oceanographic Studies in Surrey, England, which was involved in sonar mapping large areas of the ocean bed. "Peter Hunter at the institute used his experience to come up with interesting parts of the seabed in the areas we wanted to set the campaigns in," Michael explains. "The data came in very large files on CD-ROM, but after some massaging by various utility programs, it was ready to be used, allowing me to pick interesting terrain features to place bases and enemy subs."

The mercenary elements of the game came from conversations with in-house MicroProse game designer Mike Brunton. They proposed what the world could be like in 50-years' time, coming up with a bleak view of the future which opened the possibilities for some exciting scenarios. The gameplay that followed was split into separate missions in a similar fashion to the MicroProse simulators, featuring separate missions. "I chose to script missions individually, like a TV series," explains Michael. "The disadvantage was that once played, the player knew what was coming, but we thought this was far

» [PC] Each mission offers a map showing the location of identified waypoints to aim for.

» [PC] The PC version had textured terrain meshes as well as textured 3D underwater crafts.

outweighed by the individually tailored nature of the mission designs."

Michael had to devise a programming language for creating *SubWar*'s missions, using assembly language macros with decision branches, loops, subroutines, and a range of instructions for enemy, friendly and neutral craft. "By a process of playtesting and refinement, we could hone each mission to provide separate challenges and also include an important element; make the unexpected happen."

Whilst Michael had a robust and technically adept 3D world to use, he still needed assistance when it came to the variety of 3D objects that would be deployed in that environment, as he explains. "I had a contractor working for me," says Michael. "Saul Marchese developed his 3D models from my sketches. In those pre-internet days, it wasn't as easy as it is now working remotely, but we managed it. He would phone me up regularly and then post batches of models on floppy disk."

As you would expect, *SubWar 2050* featured dark and moody underwater visuals to help build an atmospheric underwater world, with a colour palette of dark blues, greens and black. "At the time I was influenced by the colours used by Psygnosis," admits Mark. "That blue-green shade in particular appeared in quite a few of their games, and it just happened to be appropriate for a game set underwater."

A scenario disk called *SubWar 2050*: *The Plot Deepens* was released for the PC shortly afterwards, introducing the Bermuda Triangle, the Mediterranean and The North Cape. It was later sold with the main game in various software bundles. "Extra missions were always in the plan, but only if the main game had reasonable sales," says Michael. The PC got more scenarios, but with problems arising at MicroProse in 1993 and Amiga sales floundering, that platform never got to see them.

"The Amiga conversion was difficult, especially as at that time I was writing nearly all my code in assembly language to make it fast enough," explains Michael. Certain visual effects had to be sacrificed to keep the game running on an even keel, but the Amiga version was at least able to utilise the faster CPU in the Amiga A1200 and the short-lived CD32 CD-based console to give a closer experience to the PC game. An Atari ST version was originally proposed, but that version was quickly sunk during development.

SubWar 2050 was enthusiastically received by reviewers and game players alike on release, and it offered a different angle to the plethora of space and flight simulator games that were flooding the market by the mid-Nineties. The combination of atmospheric graphics, sound effects and the futuristic scenario made it a standout title during a period of significant changes in the games industry, with many publishers and developers producing console arcade games rather than big box strategy and simulation titles.

"It was ambitious for the time," admits Michael. "I'm proud of what we achieved though. The other thing about that era of videogame development was the personal satisfaction you had coding games entirely on your own, especially as there were no 3D graphics libraries to help you, like Unity and Unreal today." ✱

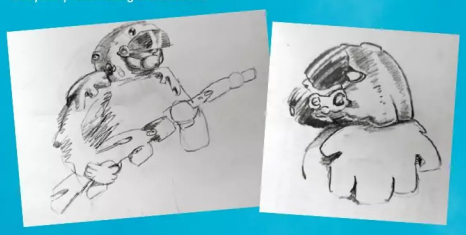
» [PC] Every sub launch was shown with an underwater launch animation sequence.

Mission 1: A Foot in the Door.
You are to check out the last known position of the convoy. You are not expected to find anything, but if any vessels come into the area, you are to identify and if necessary sink the intruders, as this is a high security area.

» [PC] *The Plot Deepens* gave PC players extra missions, including one in the notorious Bermuda Triangle.

» [PC] The 3D briefing map helps give a different perspective to the upcoming mission.

» [Amiga] Excessive damage can lead to your sub losing buoyancy and failing the mission.



Streets Of Rage

» **PLATFORM:** MEGA DRIVE » **RELEASED:** 1991 » **DEVELOPER:** SEGA R&D6

Your mate was supposed to visit tonight as you were planning to complete Sega's new scrolling fighter together. Unfortunately, they've not turned up due to being ill. "Fine," you tell yourself, "I'll do it on my own. After all, how hard can it be?"

Well it turns out that *Streets Of Rage* is actually quite hard, and like *Final Fight*, it's easy to become overwhelmed by enemies as you seek to make the streets safe again. Initially, things start off well and you're able to keep the tide of scum at bay thanks to a variety of weapons you find strewn about, and your own fists and feet. As the level continues, enemies come thick and fast and you start taking far too many hits for your liking. In blind panic you hammer the B button to counterattack, only to realise that you've instead launched your special attack.

A squad car roars onto the screen and a fellow officer pops out the sunroof and fires off a huge missile. It soon lands in a circle of fire around you and all your opponents, who are dispatched in an instant. You press on, hoping you're not going to need that powerful support for the first boss. ✱

BIO

Making its debut in 1991, Sega's *Streets Of Rage* was the publisher's attempt to take on the success of Capcom's *Final Fight*, which was proving extremely popular on the 16-bit SNES. Crafted by Sega R&D6 it proved to be a tremendous hit, making its way to the Master System and Game Gear and spawning three sequels (the last of which appeared in 2020).

MORE CLASSIC STREETS OF RAGE MOMENTS

Banging Tunes

Streets Of Rage features a stunning dance-fuelled soundtrack courtesy of Yuzo Koshiro. While every stage features a great tune, the high tempo, energetic, Caribbean-style beat found on level 3 is easily our favourite.

Kneesy Does It

You may be officers of the law, but that doesn't mean you won't fight dirty if you get the chance. If you get close enough to an opponent you'll be able to grab them. Once locked in, you can finish them off with painful knees to the groin.

Water Rage

Stage 4 sees you taking the fight to water and you find yourself brawling on a huge cruise ship. While it's a relatively simple stage to plough through, one nice touch is that the boat bobs up and down to simulate movement on water.

Vindication

While *Final Fight* never reached Sega's console, *Streets Of Rage*'s two-player action more than made up for it. The inclusion of a factory level (that was missing from Capcom's SNES conversion) was another smug talking point for Mega Drive owners.

ULTIMATE GUIDE

SUPER MARIO KART

TAKE SOME GO-KARTS AND MODE 7 TRACKS, ADD A HEALTHY HELPING OF COMBAT AND THEN SPRINKLE IN A LITTLE MARIO MAGIC. WHAT DO YOU GET? ONE OF THE FINEST GAMES EVER MADE FOR THE SNES, AND THE FIRST ENTRY IN A LEGENDARY SERIES OF MULTIPLAYER RACING GAMES

WORDS BY NICK THORPE

Any conversation about the best multiplayer games of all time will, at some point, turn to the *Mario Kart* series. Once that happens, the conversation will almost inevitably degenerate into a heated debate over illegal shortcuts and dirty tactics, and soon enough you'll be challenging your conversational partner to a race, which will inevitably cause further arguments that can be heard half-way down the street. That's not an exaggeration either, as our neighbours have pointed out.

Of course, all of that multiplayer joy started on the Mode 7 roads of the SNES. It's really no wonder that *Super Mario Kart* is far more renowned for its multiplayer racing than its solo experience, because the game was a multiplayer game before it was anything else, a fact that's visible in its unusual use of a permanent split-screen display. Nintendo had initially explored making a multiplayer *F-Zero* sequel, only to discover that it wouldn't be possible to replicate the huge courses needed for that kind of speed in a split-screen game. Going back to the drawing board, Nintendo chose to replace the futuristic anti-gravity racers with go-karts, and eventually replaced the generic racer sprite with Mario characters.

The story of the game's development is much more substantial than the story of the game itself. Why is Mario having a friendly race with both his friends and foes? The manual doesn't elaborate, simply introducing Lakitu as the person in charge of the track. The truth is that it doesn't matter too much, as the genius of using the *Mario* world is that it makes the additional aspects of the racing experience far more intuitive, such as the power-ups. You can use shells in an offensive fashion in the platform games, and that's the case here too. The feather enhances your jumping capability in *Super Mario World*, and the same is true in *Super Mario Kart*. You see coins on the track and you know you want to collect them – in this case, because they increase your top speed.

The setting also provides diverse landscapes to race across, from the slippery mud of Choco Island to the stony roads of Bowser's Castle. The texture of the road is brilliantly conveyed ▶

» [SNES] Luigi drifts his way around a Thwomp, but they're harder to dodge on later courses.

» [SNES] The ability to jump was added because the developers felt it was a core *Mario* feature.

PLAYING TIPS

WAYS TO GET AHEAD OF THE PACK, AND KEEP YOURSELF THERE

QUICK START

■ Get an advantage right from the start of the race with a turbo boost, by hitting the accelerator shortly after the first beep of the starting countdown. It's better to be slightly late than slightly early, as going prematurely will stall you.

SNEAKY SHORTCUTS

■ Look out for gaps in the barrier walls that you can power through with a mushroom turbo. If you receive a feather on a particular course, there's a good chance you can use it to cut across a very dangerous gap.

REAR VIEW

■ If the lower display switches to a rear view while you're racing in single-player mode, one of the racers behind you is about to launch their special weapon at you. Keep an eye out for items flying overhead.

RUIN RIVALS

■ Every racer has a designated rival, who will generally lead the pack whenever possible. Gold trophies are easier to get if you identify them and try to sabotage them, preferably on the final lap to cost them points.

» [SNES] Don't worry, Mario, the CPU racers can't steal your item panels here.

» [SNES] Princess Peach takes out Toad with a Red Shell in the brilliant Battle Mode.

» [SNES] If you see a mushroom on the track, avoid it – it's a poisonous one that will shrink you.

» [SNES] Toad has been squashed flat, after being run over in tiny form.

by the way the karts jump and judder as they drive across wood and stone – a great little graphical touch – and it affects the handling of the eight racers, who share four distinct driving styles between them. Mario and Luigi are all-rounders, Yoshi and Peach have great acceleration but struggle with corners, Toad and Koopa also have good acceleration and great handling but a poor top speed, while Bowser and Donkey Kong Jr are slow off the mark but have the best top speed.

Limitations on course sizes had some distinct effects on the way *Mario Kart*'s circuits were designed, with plenty of twists and turns and a relative lack of long straights, and each race takes place over five laps because of the short circuits. If you're playing solo, the goal of the game is to win each of the three main cups, each of which consist of five races. Should you manage this in the 100cc difficulty class, you'll unlock the final Special Cup, a set of five more courses including the fearsome Rainbow Road, a course without roadside barriers in a floating void. Earning gold here will unlock the 150cc class. You can also take on this mode with a friend, or choose to participate in Time Trial races.

One brilliantly considered aspect of the game is the way in which it subtly favours racers who are trailing behind. While coins tend to be plentiful, racers starting at the front of the grid only get two to start with, compared to five for those on the back row. You'll generally only get one opportunity to drive over an item panel per lap – and since they don't reactivate once used, competition for them can get particularly heated in multiplayer races. You'll tend to get

» [SNES] The CPU cheats a bit – Peach has just jumped over that banana in a way you can't.

better power-ups when you're behind in a race too, helping to even the odds. Thankfully, CPU racers can't make use of the item panels, though they do get an unlimited supply of their own character-specific items. Some of them aren't available to the players, such as the Poison Mushrooms that shrink racers who run into them, as well as Bowser's fireballs.

If you do somehow get bored of the racing action, the Battle Mode is there to provide a way for two players to settle their differences. Choosing one of four maze-style maps, you roam around and try to hit your opponent three times to pop their bubbles before they can do the same to you. The choice to place an extra focus on the combat element of the action proved a great decision, and although the mode is relatively limited compared to the Battle Modes of later *Mario Kart* games, it became a beloved aspect of the game that greatly extended its multiplayer lifespan.

Super Mario Kart was released on 27 August 1992 in Japan, and arrived in North America just days later, with Europe getting the game in January 1993. The game was very popular with critics. Writing in *Nintendo Magazine System*, Radion Automatic mentioned that the game "moves at a cracking pace with a smoothness

ROAD TRIP

HERE ARE THE EIGHT ENVIRONMENTS THAT PROVIDE THE SETTING FOR SUPER MARIO KART'S 20 CIRCUITS

MARIO CIRCUIT

■ The four Mario Circuit courses appear in the Mushroom Cup, Flower Cup and Star Cup, and they are pretty standard raceways with paved roads. Watch out though, as there are oil patches and Warp Pipes on the track.

DONUT PLAINS

■ There are three versions of this less grippy dirt track, with occasional bridges over lakes – in the third one, you'll need to hop over a gap. Monty Moles will jump out of holes and ambush you if you're not careful.

GHOST VALLEY

■ The wooden boards on these three tracks aren't particularly well maintained, so you'll need to watch out for holes in the track. Also, colliding with the walls will destroy them, leaving more ways for unwary racers to fall.

BOWSER CASTLE

■ These three circuits are the penultimate challenge in each of the first three cups, and they offer nasty right-angle turns and plenty of hopping over lava. Thwomps can block your progress, but it's worse if they crush you.

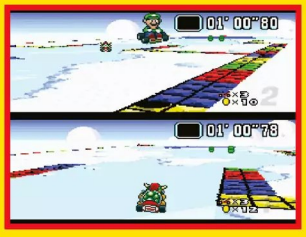
» [SNES] Bowser unleashes the lightning, shrinking and slowing down all of his rivals.

CHOCO ISLAND

■ The first of these two muddy tracks is your first challenge in the Flower Cup. Both of them are really hard to steer on, so you'll want to avoid losing your grip and colliding with the plentiful Piranha Plants.

KOOPA BEACH

■ Your first encounter with Koopa Beach doesn't come until the Star Cup. Avoid the deep water as you hop between sandy islands, and make sure to avoid the Cheep Cheeps that are flopping about the place.



VANILLA LAKE

■ These icy circuits are a nightmare – not only do they offer very little grip, but they are littered with breakable ice blocks. These are placed in the least convenient places, and will seriously halt your momentum if you hit them.

RAINBOW ROAD

■ It's nice and colourful, and the course layout looks forgiving, but if you leave the road you'll fall into the abyss and Lakitu will have to save you. Making things worse are a fork in the road and Super Thwomps.

FIRST LAP ODDITIES

SUPER MARIO KART LAID THE GROUNDWORK FOR A SUCCESSFUL SERIES, BUT WHICH OF ITS FEATURES WERE LEFT BEHIND?

SPLIT-SCREEN

■ Although every home-console *Mario Kart* includes a split-screen multiplayer mode, the SNES game is the only one that enforces a split-screen view at all times. It's an odd look today, and one that will almost certainly never return.

REPEAT COURSES

■ Apart from Rainbow Road, each of *Super Mario Kart*'s course environments are used for two to four distinct tracks. This approach was never used in the series again, though *Mario Kart: Super Circuit* does have four Bowser's Castle circuits.

COINS

■ Four of the first five *Mario Kart* sequels didn't include coins to increase your top speed, with *Mario Kart: Super Circuit* being the exception. *Mario Kart 7* brought the mechanic back in 2011, and it's included in *Mario Kart 8* too.

CHARACTER-SPECIFIC ITEMS

■ *Super Mario Kart* has character-specific items for CPU racers. The only other games in the series to have character-specific items are *Mario Kart: Double Dash!!* and the mobile game *Mario Kart Tour*, both of which let players use the items.

TWO-PLAYER LIMIT

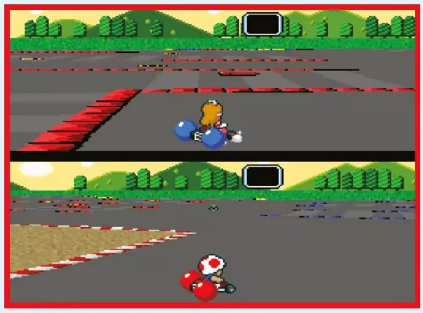
■ Nintendo had a job getting two players racing on the SNES, but later games in the series have allowed for four players by default – even the handheld game *Mario Kart: Super Circuit* and the mixed-reality *Mario Kart Live: Home Circuit*.

FEATHER

■ Eight of the nine power-ups available to players in *Super Mario Kart* have become series staples, but the high-jumping feather was ditched after the first game. It only returned in the Battle Mode of *Mario Kart 8 Deluxe* in 2017.

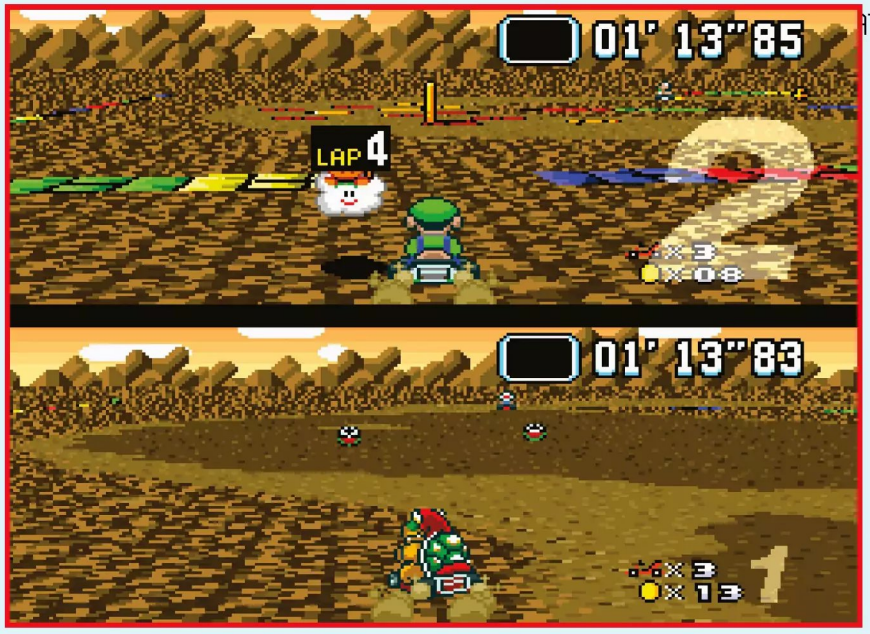
» [SNES] Bowser's about to get a Red Shell up the tailpipe – Peach's revenge for multiple kidnappings.

» [SNES] If Mario had a feather, he could leap that gap and avoid the right-angled turns.



» [SNES] Barriers were added to Battle Mode to prevent players from getting dizzy.

» [SNES] Fun fact: Peach and Bowser actually drink their victory champagne in the Japanese version.



» [SNES] A mushroom helps Luigi speed through this hole in the wall – a nice shortcut.

not seen since the ultra-brill *F1 Exhaust Heat*". In the same review, Jaz Rignall praised the game's "fast, furious and highly addictive racing action" and called it an "utterly essential purchase" for players who could make good use of the multiplayer modes, but felt the solo Grand Prix was "far, far too easy" and noted that the courses are "small and very easily learned". That was still good for a 92% review score.

In *Super Play*'s import review, Jonathan Davies highlighted the "fantastic" graphics and Matt Bielby was impressed by the "bizarre cat-and-mouse alternative" of the Battle Mode, with each giving the game 93%. *Control* gave the game 80% on import, complaining that "you are left gagging for more" because of the low difficulty level, but the UK review a few issues later bumped the score up to 94% and praised the "varied and challenging courses". Frank O'Connor gave it 94% in *Super Action*, declaring it his favourite game ever, and *Computer & Video Games* gave it a whopping 96%, with Paul Rand noting that it "really comes into its own" in multiplayer.

With that combination of recognisable branding and high quality, *Super Mario Kart* was as near to a guaranteed sales smash as you can find, and it became one of the best-selling SNES games ever. As well as being bought by plenty of existing SNES owners, the game was added to console bundles and eventually saw reissues as part of the *Players' Choice* and *Nintendo Classics* budget ranges, selling a grand total of 8.76 million copies. The game later reappeared on the Virtual Console services for the Wii, 3DS and Wii U, and these days is included as part of the range of SNES games available to Nintendo Switch Online subscribers.

Super Mario Kart laid down the blueprint for *Mario* spin-offs in general – games like *Mario Tennis* and *Super Mario Strikers* have adopted similar arcade-style, power-up heavy approaches to their own genres, while including all-star rosters of heroes and villains from the series. However, few have reached the heights of *Mario Kart*, which quickly grew into one of Nintendo's most high-profile series as a procession of sequels built on what was evidently a winning formula. Despite all of those sequels, some players still swear that this first game is the very best of the lot thanks to the purity of its racing, devoid of the Blue Shells, snaking and motorbikes of later entries. Whether or not you agree, there's no question that it's still a fantastic racer.

» [SNES] A seemingly innocuous screen, but one that offers the option to switch items off. The horror!

LEFT IN THE GARAGE

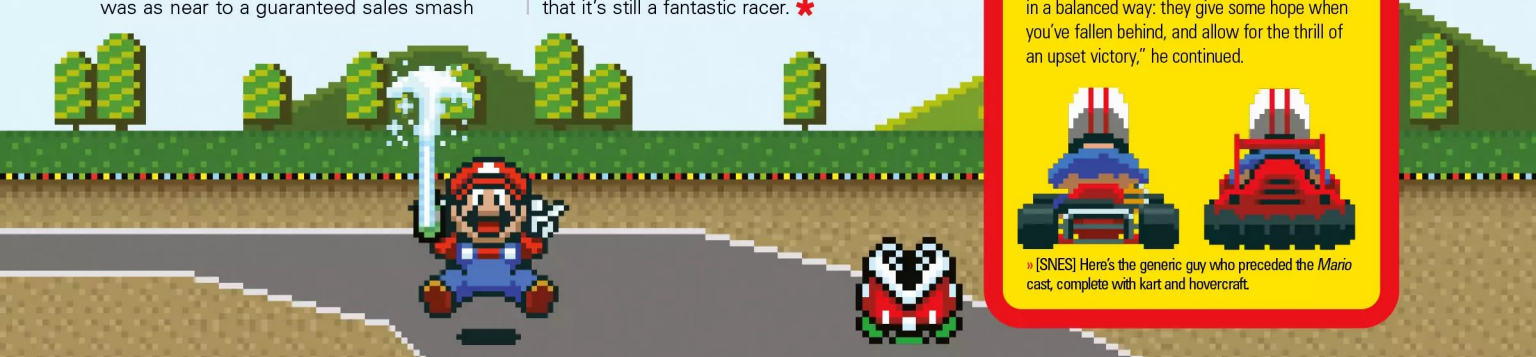
WHICH PARTS OF SUPER MARIO KART NEVER MADE IT TO THE TRACK?

A number of different concepts were tried out on the way to creating the final version of *Super Mario Kart*, and many didn't make it into the final game. In its very earliest stages, over a year before the game was released and before the *Mario* characters had been adopted, the game wasn't just a kart racer – it also included a hovercraft mode, with appropriate sprites and a floaty handling model.

Some months later, with the *Mario* theme firmly established, an alternative form of Battle Mode was tried out in which you drove around a map without obstacles and had access to infinite, rapid-fire projectiles – represented by coins in the prototype. Speaking in the official Japanese strategy guide for *Super Mario Kart* (as translated by Shmuplations), director Hideki Konno noted "spinning around and around in this open field with no obstacles or landmarks, after five minutes you'd get really dizzy".

Later on, months before the final release, there's an option present that might seem like heresy to *Mario Kart* fanatics – a choice to disable items in the Grand Prix mode. Speaking in the Japanese guide book, Konno explained why this was considered. "No doubt, for some people who played *F-Zero* really seriously, the whole idea of 'luck' in a racer would be anathema, so originally we had an option to turn items on/off for the Grand Prix mode. That was our quick fix for that problem," he explained. "But I think that as you play with the items, you come to realise they're implemented in a balanced way: they give some hope when you've fallen behind, and allow for the thrill of an upset victory," he continued.

» [SNES] Here's the generic guy who preceded the *Mario* cast, complete with kart and hovercraft.



Street Fighter II Turbo

WHO'S THE BOSS?

» SNES » 1993 » CAPCOM

As much as I loved playing the original *Street Fighter II* on the SNES, not being able to play as the bosses always felt like a huge oversight. Fortunately, the money-loving Capcom released a version of the game that allowed you to do just that and it quickly climbed to the top of my SNES want list. Although I had a Japanese version of the game, I can still remember walking into Boots with a friend where he dropped a cool £65 on the PAL release which came in a swanky tin case.

Despite the high price it was clearly money well spent because I don't recall a time I went around his house and it wasn't in his SNES' cartridge slot. Needless to say we played *Turbo* a lot and were both pretty good at it. Ironically, we didn't really play the game on the new faster difficulty settings as we preferred the pace of the original SNES release, but we took advantage of everything else the game offered and it wasn't uncommon for us to have gruelling 12-game battles where we played mirror matches with each brawler.

It's fair to say we spent most of our time playing as the bosses and while we became equally adept with each one, we soon settled on a personal favourite with my friend always opting for M Bison, while I would typically go for the flamboyant Vega (I'll use their Western names here to avoid confusion).

We must have spent hundreds of hours playing that game, so I certainly felt sheepish the last time my friend visited and they asked if we could play a quick game or two and I had to point out that I no longer owned a copy. Luckily, I remembered that it was one of the pack-in games on the SNES Mini, leaving us to recreate the battles we'd enjoyed so much some 30-odd years earlier, while his kids looked on with complete disinterest. Did I say 30-odd years ago? Christ, we're both bloody old now.

M.BISON

MAGAZINE CRAFT

LES ELLIS

The games business transformed immeasurably over the course of the Nineties, and whether he was writing for Raze, GamesMaster or Computer & Videogames, Les Ellis had a front row seat for it all. We caught up with him to revisit his magazine career, discuss his subsequent adventures in game development, and discover how he picked up his spooky reputation

Words by Nick Thorpe

THEN

After starting out on the short-lived multiformat magazine *Raze*, Les became a mainstay of Nineties gaming magazines, contributing to the likes of *Sega Pro*, *Console XS*, *Amiga Power* and most notably *GamesMaster*, for which he was part of the launch team in 1993.

NOW

Les moved into the development side of the business by joining Pocket Studios in 2002, and has worked on games including *Gauntlet: Dark Legacy*, *Star Wars: Flight Of The Falcon*, *Empire Of Sin* and *Doctor Who: The Edge Of Reality*. He currently splits his time between Xtended Realities and Just Add Water.

What are your earliest memories of videogames, Les? What kinds of games did you enjoy the most early on?
Oh man, I can remember having TV gaming systems as a kid, Binatone I think, where you would get ten versions of *Pong* dressed up as tennis, basketball, football, that were all variants on the bat and ball mechanic. I can also just about remember handheld football and *Space Invader* games landing at Christmas. I've always had a wide and varied taste in games, so it was never only racing games or sports games. I always played as much as possible, especially when I started getting into the early games mags like *Personal Computer Games* and *Zzap!64* and they would recommend all manner of games.

Was writing something that you were naturally drawn to during your school years?
Very much. I had a couple of teachers who really encouraged it, among the many more who discouraged it ("You'll get nowhere playing games and writing for a living," I still have that on a report card somewhere). I do remember writing stories for games and reviews of games I bought, or 'found' on a C90 cassette somewhere.

> "I had a couple of teachers who really encouraged it, among the many more who discouraged it"
> LES ELLIS

How did you get your start working on games magazines?
Least exciting story ever. It was a job ad in a local paper I think, I was playing in a band at the time and needed some money. I saw an ad for playing games for a living, applied and the rest is history.

What was it like working on *Raze*?
So much fun. Going from the world of shitty jobs that hardly inspired imagination to the world of videogames was mind-blowing, a real eye-opener. Being able to get any game you wanted, any system you wanted was awesome. I ended up spending more time in the office than I did at home, I virtually lived there. Then going to events and visiting developers and publishers to see games in progress. I was in hog heaven. My hobby became my whole life at that point.

You were on *Raze* right up until Newsfield went bankrupt. What was the atmosphere like? Do you remember there being any warning signs before the company went under?
So *Raze* was made in a small town in Wiltshire, the company had a contract publishing deal with Newsfield so we weren't there as such. I think we only went to see them once for their Christmas party. We were already planning on developing our own magazine at this point so Newsfield going under just accelerated that. The relationship with them was already tense at that point so us breaking away to do our own thing was inevitable.

You joined Paragon Publishing soon after. Did the fact that it was a brand-new company make much of a difference compared to being at Newsfield?
Ah, Paragon wasn't a new company. We just changed the name from The Words Works to

» Here's one of the import reviews that resulted from *Sega Pro*'s highly independent approach.

Paragon and started work on what was to become *Sega Pro*. As for being different, oh hell yes. The shackles were off and we could do and write what we wanted. So we did.

> "We had many, many late night gaming sessions – Kick Off, Sensible Soccer, Bomberman (oh man those matches were brutal)"
> LES ELLIS

What are your memories of working on *Sega Pro*?

So many great times at *Sega Pro*. We had a small, but great, team, so everyone was aware of what everyone else was working on. We moved to a new office above a shop that sold TV systems who ended up piping Sky from their showroom to our office. Picture the late nights working where we had to try and point the Sky remote control through their metal grille to change the channel. We had many, many late night gaming sessions – *Kick Off*, *Sensible Soccer*, *Bomberman* (oh man those matches were brutal), *EA Hockey* – the list is endless. The Dingbat masthead messages exchanged with *Sega Power* who were based half an hour down the road. A special screening of *Terminator 2* in London was a fun one.

Sega Pro grew so fast in that first year but it never lost that rebellious edge. Sega Europe hated us and refused to support us at first, so we covered a lot of import games so we could show off games before their supported magazine at Future.

Why did Sega Europe hate the magazine?

I don't know whether it was an official deal, but they had an agreement with Future where they supported *Sega Power*. We came along, we asked Sega Europe to support us, they said no. So we were basically like, "Well, we're going to go and get all the titles we know you're doing. We're going to go and get import versions of them. We'll get them before *Sega Power* so we can basically blow all their exclusives out of the water." This was back when we were slightly more competitive and rock and roll, before we became a bit more friendly with the guys at *Sega Power*. So yeah, Sega Europe just hated us because we didn't play by their rules. The grey import market was exploding at that stage, it was huge. So why wouldn't we support that? You could tell by the kind of adverts that the magazine was carrying that that's the way it was going to go. We

» [PlayStation] Les remembers *Ridge Racer*'s stunning home conversion feeling like a major turning point for gaming.

My Favourite Gaming Mag

Faced with this question, Les replies, "Oh that's a tough one," before thinking back to his years as a reader. "Some of the [Oliver] Frey *Zzap!64* covers were insane." Reflecting on his own work, Les says, "I liked some of the *GamesMaster Mortal Kombat* covers as I knew how much work went into getting those exclusives." Issue 34 of *GamesMaster* has original art by Paul Kidby, and the full piece includes Les' name on one of the headstones – sadly the *Mortal Kombat 3* logo obscures it on the final cover.

I Remember When

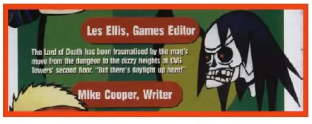
GETTING RECOGNISED

"When I was on *Sega Pro*, and on *Raze* to some extent, it was a really small town we were in. So when these things became popular, it's almost like you were the new rock star, because your photos were in the magazines. People knew you. My mum was a dinner lady at the time, and kids at her school would take up the magazine to her and go, 'Is that your son?' It was probably only then that she actually acknowledged it was a proper job."

I REMEMBER WHEN

MARIO MANIA

"That has to be possibly the greatest game ever. When *Super Mario 64* came into the office, that was a real game-changer. Everyone was just playing it. I think it was Marcus Hawkins or Andy, I can't remember which – probably Andy, come to think of it, he would have loved that game – being one of the first to 120 star it. I still play that game now on emulators."



» The reputation Les cultivated on *GamesMaster* followed him when he made the move to *CVG*.

My PROUDEST MOMENT

"Launching any magazine is a massive moment and I've been fortunate to launch and relaunch many," says Les. Indeed, Les was on the launch teams for *Raze*, *Sega Pro* and *GamesMaster* among others, and spent enough time on *GamesMaster* to have experienced a few major overhauls of the magazine's design and format.

were best friends with Console Concepts, for example. We'd quite often just drive up to their big shop that they had, go out the back and they would just have hundreds of import games there, and we'd just screenshot every single one of them, so that we'd get stuff way ahead of even Sega Europe, which was fun. But yeah, they hated us for that.

How did you end up coming to work on *GamesMaster* at Future?

Paragon were about to move to Bournemouth and that didn't really do it for me. One of the guys there had just moved to Future and called me one day to say that *Amiga Power* were looking for someone.

I was a big Amiga gamer at that point so popped over to see them and say hello. After two or three issues of that, *GamesMaster* was starting up, albeit in secret, and they asked me to go join the team that Jim Douglas was putting together.

***GamesMaster* was a big success right from the start. Why do you think it proved so popular?**

The link to the TV show obviously helped a lot, being plugged at the end of the show was a huge boost. I seem to remember that first issue doing over 300,000 issues sold. It was also different in tone, the writing was smarter and it wasn't afraid to give reviews that would be controversial. *Sonic 2* anyone? We had some great writers throughout my time there and we were encouraged to come up with different ways of writing about games. It also helped that the team were experienced and had some great contacts that led us to being able to write about games before anyone else.

» Les made his first foray into games magazines as a staff writer for the short-lived *Raze*.

» [Mobile] *California Games X* is one of Les' past projects that has plenty of retro heritage to it.

The never-ending *Mortal Kombat* exclusives were a great example of that.

You spent quite a few years working on *GamesMaster* – was it a particularly good fit for you?

It was a great fit. I love videogames and it gave me the opportunity to explore any game on any system I wanted. With the level of readership we had we had quite a bit of pull to see stuff early and break exclusives before other people did and I loved talking to developers about what they were working on. I spent a lot of time in the office late at night talking to US-based devs to get news and gossip out of them.

You definitely had a distinct personality back in the *GamesMaster* days, with quite a bit of talk about you being something of a creature of the night. How did all that come about?

Oh God, that. I tend to wear black a lot, had crazy contact lenses (glow in the dark white ones at some point), wore inverted crosses and tended to like dark stuff like horror movies. The team had some fun with that and it just grew. It was too much fun to bother stopping it but it has kind of stuck with me, even now.

What was it like being on the front-lines for the transition to 3D consoles in the mid-Nineties?

Massively exciting. You know, when the PlayStation turned up, you saw the likes of *Ridge Racer* on it and you just knew that everything you knew was gone, and this new generation was going to change things so

» [PC] Les had the chance to work with Romero Games, during which time he worked on *Empire Of Sin*.

massively. Obviously it did – PlayStation made it all pop culture and very mainstream. Seeing these things outgrowing 'just' being games machines and becoming these cultural icons, was incredible. And it brought so much money into the industry, and that was a great thing.

Did you notice any particular changes as a result of that influx of money into the industry?
People started to take it a lot more seriously. Marketing budgets became enormous, and musicians, TV stars, film stars, becoming involved in game marketing became a thing. That was the really big change – all of a sudden, all these mainstream entertainment media came into games. And I think this is where games started to become bigger than anything else. But yeah, seeing The Prodigy being involved in games marketing was great. And Ade Price on *GamesMaster* and again, Andy Lowe, were massive fans of The Prodigy. So seeing that kind of stuff going off was great. It wasn't just kids playing games in their bedroom anymore, you didn't play games, you played PlayStation or you played Nintendo. And it was a lot less, I guess, nerdy for want of a better phrase – it was way more mainstream.

Did you ever have any particularly nightmarish deadlines?
Yeah, there were some that were like, a game that was going on your cover and you hadn't had it in a few days before the magazine was due to go to print. You'd start to get the wobbles and get a bit worried about that. There were some close calls – the worst one that comes to mind, there was one wrestling one we did where we didn't get the game until incredibly late, and we were quite big on our wrestling coverage on *GamesMaster*. At the time, I was a big fan of the WWF and ECW and all that stuff. So I was harassing the developers a lot for that kind of stuff and our *Mortal Kombat* coverage as well. We actually spoke directly to Ed Boon at Midway to get all of our exclusives, no one knew we did that.

Because they were obviously in a different time zone, you couldn't push them to do anything, and back then, if they sent stuff, it couldn't be emailed because there wasn't any – it had to go by FedEx. You were always sat there at the post room thinking, "God, please let it come today," because they'd be sending over concept artwork and things like that. So yeah, that caused a few stressful nights.

What prompted you to jump ship to EMAP and *Computer & Videogames* around 2000?
I had been on *GamesMaster* for a long time at this stage and it didn't look like a move upwards on *GamesMaster* or to another mag at Future would happen. I met with Matt Howell and Paul Davies from *CVG* in London as I was there a lot visiting publishers, we got talking and they offered me a role on *CVG*. The idea of moving to London after living in this small town was appealing, so I did it.

> "We actually spoke directly to Ed Boon at Midway to get all of our exclusives, no one knew we did that"
> LES ELLIS

I REMEMBER WHEN

THE SONIC 2 REVIEW
"It's not like we gave it a bad review, it just wasn't 90% – I think it got like 70-odd or something like that. All the usual threats were made, you know, 'we'll pull advertising' and all that stuff. They never did. We still stand by it. The team have got together a few times and had conversations, we did an interview for some guy a while ago, and everyone remembers it, and it was still the right review. It was still the right score."

BEST INTERVIEW

ED BOON & JAKE SIMPSON

"I entirely blame Jake Simpson for this," says Les, and you know a story is going to be good when it starts with an assignment of blame. "There was an arcade convention in Reno, and they were launching *Mortal Kombat 3* there as a coin-op. So I went over there, take a lot of photos, play it loads, learn all the moves, that kind of thing. And my friend Jake Simpson at the time was working at Midway, and said, 'I'll introduce you to Ed, John and the rest of the team.' So we were there talking, and they all went out to a strip club afterwards and dragged me along with them – protesting all the way, obviously," he continues. "We just ended up doing interviews in the strip club – you know, dictaphones on tables, trying to do interviews, everyone being distracted. I think at one stage, there was a couple of lap dances going on at the table for people who were there. It was just chaos, it was so rock and roll. The only thing we couldn't do, obviously, was photos. But, you know, we worked them out afterwards." It's a surprising venue, and he acknowledges, "You wouldn't be able to do that now," which is true – while our former office shared a street with a strip club, we never held interviews there.

» [Arcade] "On *GamesMaster*, we used to play *Street Fighter II* religiously," says Les. "Every day, there were challenges going on."

▶ *CVG* and *GM* were each other's closest competitors – was there much difference between the two work-wise?
Not really, no. Matt was more into the craft of making magazines rather than the actual content, and he'd come from a motor magazine background, I think, but he gave us a lot of creative freedom to do good things with the content of *CVG*. We did some crazy features that were fun. I remember the one where they bought a coffin into the office and we did a photo shoot around that. So again, you're talking about that whole dark thing – I was stood in this coffin and everyone was dressed as zombies around me, and I'm just there thinking, "This is really going to help this image go away." But, yeah, we did a lot of stuff like that.

> "I was stood in this coffin and everyone was dressed as zombies around me" LES ELLIS

You joined Pocket Studios in 2002. How did you make the switch from media to development?
I was spending a lot of time talking to developers outside of work. I remember a very late-night conversation with one based in the States where we were talking about making games and he just told me, "You know how to do this, so get off your ass and do it then." Thanks Jake!

Which of the games you've worked on have you enjoyed the most?
I've enjoyed different parts of all of them. They all have different challenges and problems to solve. I've been lucky to work with a lot of amazing developers, whether it's programmers, artists or designers. I've worked with some absolute legends and loved every minute of it, even the bad times.

I worked briefly for a company in Paris, that was a lot of fun. We were working on *The Saga Of Ryzom*, which was an MMORPG. It was beautiful. But obviously, MMOs are horrendously expensive to make and to run, and if you don't have a massive community on day one, you're doomed to failure. But it was a very pretty game. I was on that for a couple of years, which is cool. I worked with John Romero for a couple of years. That was awesome.

How did that come about?
They're based in Ireland, and him and his wife Brenda were good friends with Stewart Gilray who owned Just Add Water at the time, who died a few years ago. I kind of said to him, we need someone to help on production of a project they're working on. And we just finished a bunch of stuff, and I'm sat around twiddling my thumb's going, "Stewart, I'm getting itchy, if we don't do something I'm going to leave." And he was like, "Can I

DEVELOPER: KONAMI
PUBLISHER: KONAMI
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PLAYERS: 1
SPECIAL FEATURES: DUAL SHOCK
OTHER FORMATS: PC
METAL GEAR SOLID
HIDE AND SNEAK...
Forgot the 'run everywhere, kill everything' approach of Resident Evil 2 and Tomb Raider 2. If you want to live, keep a low profile.
▲ Cameras are mounted all over the place and if you're picked up, they'll raise the alarm and then the guards will come running. Watch for the yellow sweep on your scanner and remember to keep close to the wall to avoid detection.
▲ Guards. Oh how much easier this game would be without them. They follow regular patrol patterns which you have to study and avoid. Their sweeps are white on your scanner. You can hide behind crates and around corners to avoid them.
TOILET HUMOUR!
No matter how sophisticated a game is, there's always a place for a little bit of small room humourage. MGS is no exception to this rule. So far we've found two examples and we're sure there must be more.
In the second base stage you can hide in the toilets. The guards will eventually answer the call of nature and obviously their backs are going to be turned. That's the perfect opportunity for you to sneak up behind them and strangle them while their hands are otherwise engaged. Maybe George Michael can identify with this tactic.
And just before you get into a fight with the Roboninja bloke – does that scientist really wet himself in terror? We certainly think so.
NIKITA!
Not a crap song by Elton John, but a completely rock hard rocket launcher. You'll find it in the lab but play with it a bit first and you'll find a neat trick like this.
NIKITA MISSILE X 4
NIKITA MISSILE X 4
FIRST IMPRESSIONS
So what do we reckon of the most awaited game in years?
One word – WOW! If you thought Resident Evil 2 was tense, you'd better book yourself in for heart treatment now because Metal Gear Solid makes the mighty Res seem like kids stuff.
Graphically, it's stunning. The 3D is more solid than you've seen before, with no tears or glitches to be seen. The stages are suitably big with plenty to see and do. There's a healthy variety of things to use as target practice as well, but the graphics, as great as they are, are not what's doing it for us in MGS. It's a pure adrenaline rush to play. At the start of the game you're sneaking around, hiding behind crates, walls and even under vehicles. Pretty cool touches, you'll agree.
But get deeper into it and the story starts to unfold with

» Les remembers *Metal Gear Solid* being "spectacular" and he got to write *GamesMaster*'s preview.

contract you out to Romero Games for a while?" I'm like, "As in, John Romero? Fuck yes, I'll do that." It kind of all went quiet, and then a couple of months after that, Stewart was like, "Oh, I'm having a Zoom call. Can you join me?" He didn't tell me who was going to be on it, so I lurched into this Zoom call and John and Brenda were sat there. So yeah, I worked for them for a little while. They're an awesome company, they've got some amazing people working there.

Can you tell us a little about your current studio, Xtended Realities?

Xtended Realities started about six or seven years ago. At the time, me and a couple of friends were doing some work for an enterprise company gamifying virtual reality training, and it was very successful. The work we did for them made a shitload of money, and we're there thinking, "Why are we making money for other people?" So we left there, I went to work for Just Add Water and the other guys went to work for other people. But it started out as a side project, we were just doing kooky VR mechanics and single-mechanic games, just so we could play around with stuff without having the pressure of publishers and big budgets and all that kind of thing. So it was a hobby project. Then a university in America came to us to do some ophthalmology training, so we did that for a while. Then being at Just Add Water and the other guys doing games as well, we just kind of naturally drifted back towards games for that company, because it just made sense.

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» Here's that coffin photo Les mentioned, and he gets to be the only non-zombie. Lucky? You decide.

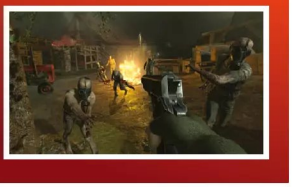
You've also been at Just Add Water for a good few years now, where you're the studio director. What duties does that involve on a day to day basis?

I split my time between Just Add Water and Xtended Realities as I share a role in both of them. Being a mid-sized indie studio right now my role branches out into many different areas. The role has a lot of planning, whether it's resource planning for a new title, working with business development to plan the short, mid and long-term future, working with HR, finance and the owners on that side of the business. I work with the dev teams to make sure they can focus on the job of developing games, removing potential blockers and dealing with clients. It's a really varied role which is the fun bit. No two days are ever the same. Plus, I have a few side projects I work on with friends with what little spare time I have after that. ✱

My FUTURE CLASSIC

ZOMBIE ARMY VR

When asked what game he'd consider to be a future classic, Les simply replies "My next one." Could that be *Zombie Army VR*, which is due for release on 22 May? "We were talking to Rebellion, and the opportunity to do *Zombie Army* came up and we were like, 'Sure, we'll do it.' It's going very well. So we started doing that in January this year, and it's been a really interesting project." Or could it be another project that Les is tight-lipped about, saying only that it's "really not pleasant, in a good way"? Time will tell.



» [PC] Just Add Water recently launched *Dig VR*, which reminds us of PlayStation cult favourite *Power Diggerz*.

I REMEMBER WHEN

BIT PLAYERS

"To be honest, you kind of knew that stuff was going to work or not. The first time we saw the CD-i, for example, was like, 'Yeah, that's cool. It's never going to happen.' Same with the Amiga CD32. You'd know that a company like Atari at the time could not have competed with Sony for marketing budgets or game dev budgets, or anything like that."

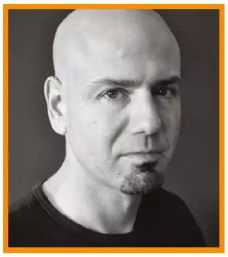
GOD OF WAR

IN THE KNOW

- **PUBLISHER:** SONY
- **COMPOSER:** GERARD K MARINO (WITH MIKE REAGAN, RON FISH, WINIFRED PHILLIPS, WINNIE WALDRON AND CRIS VELASCO)
- **BEST TRACK:** ATHENS ROOFTOP FIGHTING
- **RELEASE:** MARCH 2005
- **PLATFORM:** PLAYSTATION 2
- **GENRE:** ACTION ADVENTURE

IN ADDITION TO BEING A BEST-SELLING PS2 GAME, GOD OF WAR IS ALSO REMEMBERED FOR ITS ENVIRONMENT-ORIENTATED SCORE, ADAPTING TO PLAYER MOVEMENTS IN A FASHION RARELY SEEN IN GAMES AT THE TIME. COMPOSER GERARD K MARINO CELEBRATES ITS 20TH ANNIVERSARY

WORDS BY LIAM HEITMANN-RYCE-LEMERCIER



Gerard K Marino composed five *God Of War* titles for Sony. Most recently, he wrote the music for a pair of sports titles under developer Four Thirty Three.

» [PlayStation 2] Scenes like this will feature energetic music, while exploration will sound more subdued.

» [PlayStation 2] *Gladiator* and Queen's *Flash Gordon* score all influenced *God Of War*'s soundtrack.

Historical action series *God Of War* has been immersing players in the ancient realms of Greek mythology for 20 years now, in the process becoming one of the highest-rated franchises in modern gaming. The rich, character-driven narratives of each entry have long been a hallmark of the series.

Reflecting this story-driven approach is the series' uniquely cinematic music. The first *God Of War* title was applauded for an adaptive score which organically followed the actions of the player, adding to the deep sense of immersion provided by the game's acclaimed level design.

Meanwhile, the influx of historical action epics across the mid-2000s – think *Troy, Gladiator* and *Kingdom Of Heaven* – led to a natural cross-pollination between the film and videogame industries. This impact was felt during the production of *God Of War*, as veteran composer Gerard K Marino reflects today. "Hans Zimmer's *Gladiator* score, Holst's *Mars, The Bringer Of War* and Queen's *Flash Gordon* scores were ultimately given to us as style guide points," he says of the game's initial development.

The game's director David Jaffe, Gerard recalls, "Wanted to try some kind of absolutely disturbing, non-melodic primordial soup of a score." BAFTA-nominated composer Ron Fish, best known for the *Batman: Arkham* games beyond his work on *God Of War*, was hired to write about 20 minutes of music in that style in late-2002. "But when they plugged it into the game," Gerard confesses, "it didn't really work at all. When the developers decided to try 'heavy metal plus orchestra', Ron was busy on multiple other projects. So they put out a cattle call to the usual suspects in the game music industry, which I was not a member of at the time."

Gerard's journey to suspect status within the music department at Sony Computer Entertainment was a feat of good luck as much as good timing, with the newbie composer being handed the baton for a major AAA title

» [PlayStation 2] Meeting Chronos is an awe-inspiring moment and the music effortlessly heightens the atmosphere.

» [PlayStation 2] Your battle against the hydra is epic, so it's fitting that the music is just as bombastic.

almost by accident. Sony's head of music had put a call out to Riptide Music, a production music library in which Gerard was creatively involved, and asked for their "most intense, evil-sounding composer – and that was me!" Gerard admits happily.

The relative unknown submitted his contribution to what he calls "the heavy-metal-plus-opera demo train", receiving mild feedback followed by radio silence for over half a year. In that time, the developers still hadn't found the right sound they wanted, and had exhausted their complete roster of usual suspects.

> "HANS ZIMMER'S GLADIATOR SCORE, HOLST'S MARS, THE BRINGER OF WAR AND QUEEN'S FLASH GORDON SCORES WERE ULTIMATELY GIVEN TO US AS STYLE GUIDE POINTS"
> GERARD K MARINO

As it turned out, Gerard's odds were as good as they could get, "I happened to write the first piece of music David Jaffe really liked in about a year," he says. "So they gave me – a relatively unknown, evil-sounding, intense kid from a production library – a shot at the title! I swung for the fences, and the score went from damn good to fucking great when they brought Ron back in, as well as Mike Reagan and Cris Velasco to round out a musical dream team."

The challenge for the game lay in the cinematic feel the developers were looking for, Gerard says, "The score was driving the character arc along as it would in a film. But, of course, a film happens in a certain amount of time and a videogame happens at the player's pace. So you have to write what would be a looping film score cue, usually an extra thick one to provide layering options, and deliver it as a multi-channel mix." Quite the challenge, but one for which the troupe of composers delivered over three hours of music. For their efforts, they were nominated at the popular Spike Video Game Awards and won Outstanding Achievement In Original Music at DICE, the Academy Awards of videogames.

Gerard's profile in the music industry rose in short order. Within a year of *God Of War*'s release, he had taken a bow on the stages of the Hollywood Bowl and the John F Kennedy Center, conducting the LA Philharmonic and National Symphony Orchestra, respectively. "It was quite a surreal thing to have my first big scoring project get immediate worldwide attention," he recalls today. "I figured these things would come to me after a long, storied career sometime in my late-60s."

Another career milestone is Laced Records' upcoming 20th anniversary packaging of his work on *God Of War*, a lovingly realised physical-media release that he could never have imagined back in 2005. "The score for the original *God Of War* was released exclusively on Sony Music's fledgling Connect streaming service," Gerard says of the soundtrack's initial publication. "We would have loved to have had any hard media release."

Sony's decision to back the soundtrack proved to be a lucrative move, as many gamers were inspired to purchase not just the game itself but a PlayStation 2 console after seeing orchestral concerts of the *God Of War* score.

Of the new LP releases on sale at the end of this year, Gerard personally can't wait. "I hope to upgrade my turntable in time to properly enjoy this massive, rough beast of a musical pantheon, now that it's come round at last, with special thanks to Laced Records!" ✱

GOD OF WAR 20TH ANNIVERSARY LP RELEASE

The first three God Of War titles are available on vinyl for the first time

■ Having produced deluxe anniversary vinyl releases for a huge range of titles – including *Far Cry*, the original *Halo* trilogy and *Prince Of Persia* – specialist videogame music publishers Laced Records is now bringing the original *God Of War* soundtracks to LP for the first time.

Available as a complete trilogy edition, or as individual soundtrack releases, the new anniversary pressings of Gerard K Marino's score for the first three *God Of War* games features newly remastered audio tracks and gorgeous inner sleeve artwork.

In a bespoke partnership with Santa Monica Studio, Laced Records have been given unprecedented access to the original developer archives, reproducing concept art and character designs in a beautiful set of collector's renderings. Shipping is due to begin in October 2025, so preorder now from lacedrecords.com to make sure you get your own piece of videogame history.

THE MAKING OF FX FIGHTER

IN THE MID-NINETIES, WHEN 3D FIGHTING GAMES HAD ALREADY TAKEN OVER ARCADES, THE GENRE WAS STILL HEAVILY UNDERREPRESENTED ON THE PC. THAT IS, UNTIL 1995 – THE YEAR ARGONAUT SOFTWARE'S FX FIGHTER MADE ITS DEBUT

WORDS BY PAUL KAUTZ

IN THE KNOW

- **PUBLISHER:** GTE ENTERTAINMENT
- **DEVELOPER:** ARGONAUT SOFTWARE
- **PLATFORM:** PC
- **RELEASED:** 1995
- **GENRE:** FIGHTING GAME

JAID MINDANG

Jaid did the original design on *FX Fighter*. After Argonaut he worked for companies like Curve Studios and Travian Games, and is now a freelance artist.

The Nineties were a transformative time for fighting games. Prior to that, everything had been decidedly two-dimensional: *Street Fighter II*, *Mortal Kombat* and *King Of Fighters* all featured well-proportioned 2D sprites battling it out. Yes, there had been a few attempts to bring the world of martial arts into 3D rings, most notably Distinctive Software's *4D Sports Boxing* in 1991, but nothing that made it into the mainstream. But then, in late-1993, Yu Suzuki's *Virtua Fighter* hit the arcades and showed the world what the fighting game of the future would look like.

> **"THE DESIGN BRIEF WAS QUITE LOOSE"**
> **JAID MINDANG**

On the PC of the Nineties, this beige work machine, a platform that was very limited due to the restrictive MS-DOS and hardware that was good for everything but fast games, the situation was of course much worse. Only once in a blue moon would you get a conversion of a popular fighting game. And if you were very lucky, the developers actually made an effort – such as with *Super Street Fighter II Turbo*, *Budokan: The Martial Spirit* and the first two *Mortal Kombat* games. PC-exclusive fighting games, however, were about as common as a McRib in a vegan fridge. Only very few developers were crazy enough to create a fast, fluid fighting game exclusively for the DOS platform. One of them was Diversions Entertainment with the very good *One Must Fall 2097* in 1994 – and another one was Argonaut Software with *FX Fighter*. However, this is only true with a pinch of historical revisionism, as *FX Fighter* was actually intended to be released exclusively for the Super Nintendo, using the second generation of the Super FX chip originally developed by Argonaut for *Star Fox*. This game sported the working title *Fighting Polygon*, and was first shown in an early form at the Winter CES in Las Vegas in 1995, and shortly afterwards at Nintendo's in-house exhibition Shoshinkai, as an official collaboration between publisher GTE and Nintendo.

The whole thing looked rather clunky, with rough, untextured characters that at least punched and kicked very smoothly. *Fighting Polygon*, whose name was quickly changed into *FX Fighter*, was supposed to be in stores by May 1995, games retailer

DEVELOPER HIGHLIGHTS

STARGLIDER
PLATFORM: AMIGA, ATARI ST
RELEASED: 1986

STAR FOX (PICTURED)
PLATFORM: SNES
RELEASED: 1993

CROC: LEGEND OF THE GOBBOS
PLATFORM: PC, VARIOUS
RELEASED: 1997

» [PC] The 3D camera pans and spins busily around the fighters.

» [PC] The battles are very fast, the combat system is very simple and straightforward.

» [PC] Fighters like Magnon are slow, but make up for that with very powerful attacks.

EB Games even published a pack shot in its own promotional magazine shortly after the CES. However, things turned out quite differently; only a few weeks after the presentations, it was reported that *FX Fighter* would no longer be released on the Super Nintendo.

There were two reasons for this; firstly, in mid-1995, Nintendo had decided to port *Killer Instinct*, a 2D brawler developed by Rare and featuring top-notch rendered graphics, which was already a huge success in the arcade, to the Super Nintendo, and was not too keen on having its own competitor released at the same time. And secondly, neither Nintendo nor Argonaut were particularly happy with *FX Fighter* on the SNES. Even with the extra power of the Super FX2 chip on the cartridge, the game never really got beyond "OK" status, as Jaid Mindang, one of *FX Fighter*'s designers, told us. "We did some extensive testing of articulated 3D character models at the time, using 3D Studio R2, to try and emulate something along the lines of *Virtua Fighter*. We had a *Virtua Fighter* arcade cabinet in our rec room, so we had all become adept at playing a variety of different characters on that. I did tests animating 3D models in a realistic mo-cap style. It was possible, but the polygon limit of the SNES hardware at the time was non-conducive to having 3D character models with enough joints to carry credible martial arts animation and look good at the same time. The best I could muster was a figure with diamond-▶

FXtive FIGHTERS

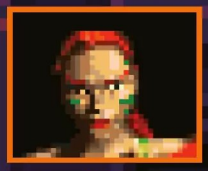
THE EIGHT WARRIORS OF FX FIGHTER

JAKE

Human Ex-Corporate Bodyguard. Fights to save his dying world

AGE: 31
HOME WORLD: Sentral
HEIGHT: 6'2"
WEIGHT: 225 lb
SEX: Male
JOB: Bodyguard

Jake is the all-round fighter of the line-up, making him a great choice for beginners. He is not particularly fast, but he has very powerful combos.



KIKO

Angry young woman fuelled by inner rage

AGE: 24
HOME WORLD: Lusk
HEIGHT: 5'11"
WEIGHT: 160 lb
SEX: Female
JOB: Student

Kiko is fast and agile. Her strength is average, but she has good throws and can hurl a Ninja Star in a pinch. She's another good choice for beginners.

ASHRAF

Spiritual human monk filled with chakra power

AGE: 75
HOME WORLD: Karlak
HEIGHT: 5'9"
WEIGHT: 140 lb
SEX: Male
JOB: Holy Man

Ashraf is not much of a fighter. He does have the powerful Energy Push, which h uses from great distances to push his opponents into a ring out.

SHEBA

A Feran – a cat-like race. Extremely fast, dangerous and proud

AGE: 20
HOME WORLD: Rhomb
HEIGHT: 5"
WEIGHT: 123 lb
SEX: Female
JOB: Huntress

This crazy cat lady won't win any strength competitions, but she's very fast and has good combos. Her crawling movements also make her difficult to grab.

SIREN

Evil Water Spirit with hypnotic powers

AGE: Unknown
HOME WORLD: Ursae
HEIGHT: 5'11"
WEIGHT: 160 lb
SEX: Female
JOB: Deity

A versatile fighter, Siren can grab opponents with her Psi-grip, lift them into the air and painfully hurl them back down to the ground.

VENAM

A Mantian Insectoid Predator. Ruthless, efficient and fast

AGE: 25
HOME WORLD: Peres
HEIGHT: 5"
WEIGHT: 115 lb
SEX: Female
JOB: Warrior

Venam is not only very fast and can chew on her opponents, but her spit attack also deals a surprisingly high amount of damage.

MAGNON

Lava dwelling silicon based lifeform. Very strong and breathes fire

AGE: Unknown
HOME WORLD: Inferno
HEIGHT: 6'6"
WEIGHT: 300 lb
SEX: Unknown
JOB: Unknown

Magnon is quite literally a walking, fighting rock. He is very slow, but more than makes up for that with raw force and his fiery breath.

CYBEN 30

Cyborg Fighting Machine

AGE: 53
HOME WORLD: Axone
HEIGHT: 6"
WEIGHT: 210 lb
SEX: Male
JOB: Engineer

Like Magnon, Cyben is a relatively slow fighter, but all the more powerful for it. His vicious kicks are to be feared!

"THERE WAS NO REASON WHY WE SHOULDN'T GO FOR SOME TRULY ALIEN-LOOKING CHARACTERS"

JAID MINDANG

FX FIGHTER 1.5

MORE THAN AN UPDATE, LESS THAN A SEQUEL

A year-and-a-half after the original release of *FX Fighter*, *FX Fighter Turbo* was released, which no longer ran under MS-DOS, but required Windows 95 and Microsoft's brand-new DirectX3 graphics interface. This was not a true successor, but basically an embellished update with improved graphics, two additional fighters (cyborg Kwondo and the ninja lady Linna), two new arenas, a network mode, an improved combo system and previous opponent Rygil was now a playable character.

There were also so-called Bloodlust Moves – they sound quite nasty, but are actually just an extra standard move per fighter that is a little more brutal than the usual punches and kicks.

» [PC] Cyborg warrior Kwondo (right) is one of the two new fighters in *FX Fighter Turbo*.

Still a far cry from *Mortal Kombat*.

The game was released, at least in the US, at a very competitive price of just $30. This was mainly due to the fact that the competition had by then appreciated the genre and flooded the PC with an astonishing number of more or less similar games in a very short space of time. *Battle Arena Toshinden*, *Warriors*, *Cyber Gladiator* and, of course, *Virtua Fighter* all invited players to get into the fray. For all its aggression, *FX Fighter Turbo* didn't stand much of a chance against these games, particularly the latter. Despite recouping its development costs, the game was considered a flop, officially sealing the fate of the series.

» [PC] There is no 3D acceleration in *FX Fighter*, the BRender engine is running on the CPU only.

» [PC] The fluid fighter movements are based on a mix of motion-captured and hand-crafted animations.

shaped limb components and a box for a head. We concluded that although it was technically possible to deliver good quality animations with such a character, we could not make the characters look different enough from each other, and they just looked too low quality."

In the end, it was with a heavy heart that the decision was made to move away from the platform that had been so good to Argonaut Software in the past (keeping the 'FX' in the name as a link to the original development) and turn to the promising wonderland of… the MS-DOS PC. It was an unusual move, but it gave the team a chance to show off the full potential of their in-house 3D system – which, according to their own advertising, was nothing less than, "The most advanced 3D rendering system ever created."

The name of this system was Blazing Renderer, or BRender for short, pronounced 'Brenda'. The software was developed by Argonaut Technologies Limited, a sister company of Argonaut Software Limited, which was also responsible for the original design of the Super FX chip. BRender was used publicly for the first time in *FX Fighter* to demonstrate not only its 3D potential, but also its flexibility in gaming. This all-in-one solution for all kinds of 3D applications (today we would call it a 3D engine) was Argonaut Software's crown jewels – the package the company hoped to make its money on for years to come. Alas, it didn't work: despite its powerful feature set and very fair pricing model, there were very

» [PC] Rygil is the big boss of the game, and he's a very nasty clobber – if he gets hold of you, you've usually already lost.

» [PC] Each fighter has more than 40 attacks, including some nice special moves.

» [SNES] Originally, the game was going to appear on the SNES and use the Super FX chip to render its graphics.

» [PC] The nine stages offer plenty of thematic variety.

» [PC] Intro, credits and fighter portraits are pre-rendered. They may look dated today, but back then they were cutting edge.

few games not developed by Argonaut that used BRender, including *Privateer 2: The Darkening*, *I-War* and Microsoft's 1995 creative kit *3D Movie Maker*.

FX Fighter was finally released in June 1995 – no longer under the Nintendo banner, but distributed by GTE Entertainment. As well as the CD, the shiny box contained an eight-page comic from Jim Lee's Wildstorm Productions, which introduced some of the game's fighters in classic superhero style and gave a little more background to the fights. It's about the evil alien Rygil, who travels the universe with his planet of destruction called Anarchis, challenging the best fighter on every world he comes across to a duel. If you happen to defeat Rygil, you get his Death Star. If you lose, he will blow your planet to smithereens. Of course, so far no one has ever defeated him. And before you have the honour of having your home blown up like an explosive melon, you will have to face off against several other fighters, all of whom face the same fate. There are a total of eight well-trained planetary saviours to choose from, offering a surprising amount of variety and, above all, weirdness – including a running pile of rocks, a feline creature, a destructive robot and an oversized kung-fu praying mantis. You can find out more about them in the FXtive Fighters panel.

The designs for the fighters were created in rough form at Argonaut Software. The actual development of the characters was then outsourced to local comic-book artist Tommy Yune, who was given general guidelines and then allowed to let his creative juices flow, as Jaid recalls. "The design brief was quite loose, to be honest. They had decided the fight would be a tournament between champions from a variety of different planets. I don't remember how well those planets had been defined at the point where I started on the character design, but being already well versed in the one verses one combat games of the time I felt that they were all very humanoid-based. Given the fact that we were going to animate them all by hand, I figured there was no reason why we shouldn't go for some truly alien-looking characters that had limbs that bent in different ways or more or less limbs than a regular humanoid figure. I felt that since it was not an Earth-based setting, we had a unique opportunity to make the characters more interesting than vanilla humanoid anatomy. In a way that was our USP compared to the competition within the genre at that time." Tommy's designs were then created into 3D data, which formed the basis of all the fighters in *FX Fighter* – both in the game and in the pre-rendered movies. ▶

» [PC] The levels are usually very small, which leads to a lot of ring outs.

» [PC] There are eight very different fighters to choose from.

» [PC] The eight fighters include some very unusual characters, such as a praying mantis and a walking boulder.

» [PC] When playing solo, you don't choose an opponent, but their home planet, which drifts through 3D space.

Playing solo, you have eight difficulty levels to choose from, the first half of which is quite easy. At least until you get to Rygil – each of his attacks deals a lot of damage, and his throw will kick you out of the ring from almost any position. And unfortunately, he grabs you far too often and far too easily. The choice of difficulty levels was also problematic in that the skill of the AI opponents was directly linked to the power of the computer the game was running on. This meant that an easy difficulty level was a walk in the park on a 486, while the same choice on a much faster Pentium CPU meant that you would be pummelled relentlessly.

Given that PC joysticks and gamepads of the time generally had a maximum of two fire buttons, *FX Fighter* made amazing use of its limited control options. Each fighter has more than 40 attacks each, including throws, jumps, combos and special moves. All attacks are performed using combinations of buttons and directions. However, gameplay was always limited to two planes, even though the camera panned breathlessly, showing the action from all possible and impossible angles.

And what you saw there was pretty damn impressive for 1995: the 3D arenas are very varied and offer some nice views. And although the fighter designs are a bit on the rough side, with clear gaps between their separately animated body parts, they move very smoothly thanks to a mixture of hand-made and simple motion-captured animation. "We recorded over 350 actual sequences of martial artists and acrobats for

» [PC] The controls are kept very simple, using just two attack buttons for all manoeuvres.

» [PC] If an opponent is down, you can dish out additional damage with a well-aimed ground pound. Ouch!

this game" the game's print advertisements boasted at the time. All of this was displayed in classic VGA at 320x200 pixels. According to the official FAQ, a higher resolution was planned for a possible sequel ("*FX Fighter* will not be in SVGA. This will be addressed during *FX Fighter 2* talks"), but that one never came to be – there's more on this in the *FX Fighter 1.5* panel.

What there was, however, was a very enthusiastic gaming press. *FX Fighter* received a 94% score in *PC Gamer*, which called it, "The finest fighting game ever created for the PC." It was Game Of The Month in *Electronic Entertainment*, scored 93% in the August issue of *PC Zone*, and even made it into *Entertainment Weekly*, where it received an A- rating. Only *Edge* magazine was a little more sceptical, rendering a six out of ten verdict and criticising the game's lack of ideas compared to its console and arcade counterparts.

In any case, *FX Fighter* sold quite well, more than 200,000 copies according to a press release from GTE Entertainment on 27 June 1995. Unusually, however, there was no conversion to the available 3D consoles at the time, even though BRender was explicitly designed for multi-platform compatibility! GTE Entertainment didn't have much of a future after that, Argonaut Software lasted until 2004 – and *FX Fighter* got forgotten in the murky depths of time.

That's quite a shame, actually. Sure, it was a clone of popular arcade brawlers, but it was the first real 3D fighting game for the PC, and as such got a surprising amount right. Jaid also remembers it fondly. "It was a more innocent time in game development, back then. Real-time 3D in games was still a novelty. I can't imagine a game like *FX Fighter* being signed up nowadays without some license or franchise attached to it, but back then, it seemed enough for GTE, that it was a true 3D fighting game for the home PC. I don't think there were many around at the time, if any."

With great 3D graphics, very fast and varied bouts and a killer soundtrack – *FX Fighter* simply appeared at the right place at the right time. On a system where there was little competition, but obviously a clear need for such a game. ★

"I CAN'T IMAGINE A GAME LIKE FX FIGHTER BEING SIGNED UP NOWADAYS"
JAID MINDANG

LOST IN TESSELLATION

A FEW OTHER CANCELLED SUPER FX GAMES

The Super FX chip, developed by Argonaut Software, gave the underpowered SNES additional computing power, making games like *Star Fox*, *Stunt Race FX* and *Super Mario World 2: Yoshi's Island* possible. But not all games with that extra oomph were so lucky – here are a few of them. The 1992 action hit *Comanche: Maximum Overkill* (more on its development in issue 254) was also due to appear on the SNES in 1995. Called *Comanche FX*, it used the power of the Super FX2 chip to display its voxel landscapes, which you would have been able to fly through with a friend in split-screen. Would have, mind you, as the game had been announced and even presented to the public, but was never finished.

Pilotwings 2 was another game that never materialised. While a *Pilotwings* sequel was never officially announced by Nintendo, it was always rumoured to be in development. In 2013, former Argonaut employee and *Star Fox* programmer Dylan Cuthbert confirmed that he had seen a prototype of it based on the Super FX chip. However, there is no more information about it. The final game we're looking at was a lot luckier. *Star Fox 2*, which was also developed by Argonaut, was ready to go in 1995, and… was not released because by then Nintendo was focussing all its attention on the N64, which was in the starting blocks at the time. Luckily, there was a happy ending: a full 22 years later, *Star Fox 2* was unexpectedly released as part of the Nintendo Classic Mini SNES.

16

Bomberman Hero

NOT THE BOMB I REMEMBERED

RETROREVIVAL

» NINTENDO 64 » 1998 » HUDSON SOFT

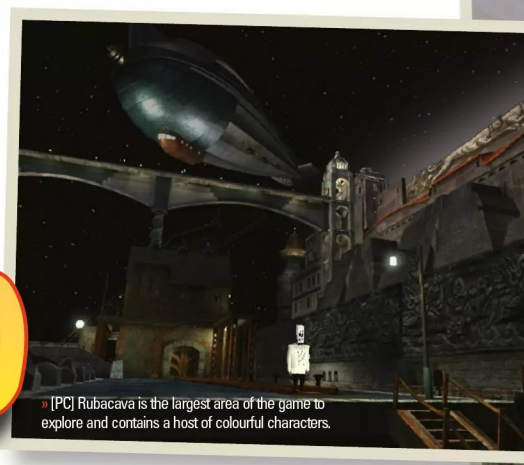
When my cousin gave me his N64, I had a pretty good idea of what the games would be like. Multiplayer nights with N64-owning friends meant that I was familiar with *GoldenEye 007* and *Mario Kart 64*, and the box art for *Virtual Pool 64* ensured that nobody would mistakenly expect simulated swimming facilities. The last game in the bundle was *Bomberman Hero*, and it didn't take a genius to work out how to do *Bomberman* on a console that included four controller ports.

Unfortunately, I turned out to be the non-genius, as it was nothing like I expected. *Bomberman Hero* is a strictly solo affair that ditches the multiplayer modes, instead presenting an interplanetary platform adventure that allows Hudson's explosives enthusiast to run around 3D stages, free from the confines of his usual mazes. It's far more linear than something like *Super Mario 64* or *Banjo-Kazooie*, which may have been disappointing at the time, but there's a place for that. What's more, it quite often rewards your curiosity if you choose to search for hidden items, and you'll want to do that as completing stages with plenty of points is key to unlocking the final stage. It's not graphically spectacular, but it does have a cracking soundtrack that will lodge itself in your brain for days at a time if you let it.

For years, I've remembered *Bomberman Hero* as being a bad game, and I feel like I've been unfair as revisiting it has shown me that this just isn't the case – it's not a top tier game, but it's fun. My disappointment in the lack of multiplayer modes was my own fault – I just made an assumption based on past *Bomberman* games, and contemporary reviews show that many critics did the same. It's a reminder that we probably shouldn't let our preconceptions about what *should* be included in a game get in the way of enjoying a game for what it actually is. ✱

ULTIMATE GUIDE

GRIM FANDANGO



» [PC] Rubacava is the largest area of the game to explore and contains a host of colourful characters.

ONE OF THE MOST ACCLAIMED ADVENTURE GAMES OF ALL TIME, GRIM FANDANGO WAS LIKE A SPECTACULAR FIREWORKS DISPLAY AT THE END OF A GOLDEN ERA FOR LUCASARTS. WE SPEAK WITH TIM SCHAFER AND PETER TSACLE ABOUT THE UNFORGETTABLE ORIGINAL AND DOUBLE FINE PRODUCTION'S SUPERB REMASTER

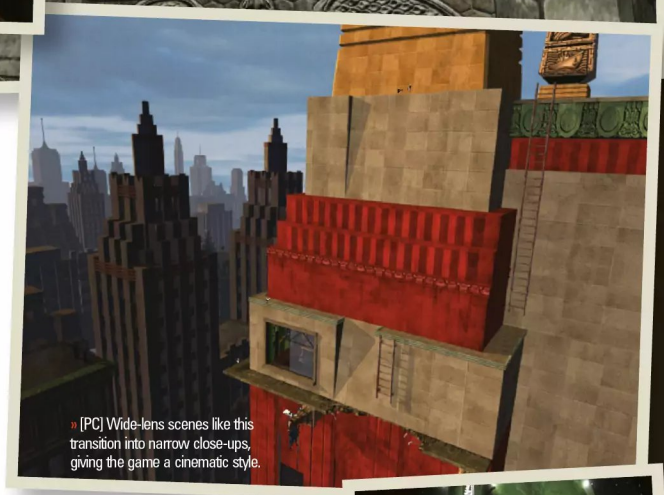
WORDS BY GRAHAM PEMBREY

Film noir, art deco and the Mexican Day Of The Dead: these eclectic influences coalesced in the riot of colour and character that is *Grim Fandango*. The fact that director Tim Schafer was given creative freedom to run with such a wild collation of concepts was testament to the success of his previous game *Full Throttle*. That cinematic biker gang adventure sold well enough for LucasArts to encourage Tim to keep pursuing the kinds of creative whims that had shaped standout point-and-click titles such as *Day Of The Tentacle*. This time around however, Tim had his eye on how other contemporary releases were pushing forward into new realms of 3D graphics. A new action game called *BioForge* was a particular influence with its polygonal characters moving around static, pre-rendered backgrounds. It was something Tim thought could work perfectly for a modern adventure.

Such ambitions meant the point-and-click conventions of most older LucasArts adventures, which were played using a cursor and a verb menu, were cast aside for *Grim Fandango*. Instead, players would guide suave skeletal hero Manny Calavera through the Land Of The Dead using a keyboard and *Tomb Raider*-style tank controls. Tim tells us both *BioForge* and *Alone In The Dark* were inspirations here. "With *BioForge* it was so dramatic, the way the camera would cut as you moved between scenes," he recalls. "Playing it, I was like: games are about to get a lot more cinematic. That was also why I liked tank controls at the time. You could navigate through multiple camera angles by just pushing forward. I think people have since soured on tank controls but they were really popular at the time."

As you move around a series of vibrant, Fifties art deco-inspired backdrops, which were brilliantly designed by concept artist Peter Chan, Manny will subtly tilt his head to look at anything noteworthy you can collect, interact with or examine. It's a clever feature enabled by a new 3D engine called GrimE that was built specially for the game, replacing SCUMM (Script Creation Utility For Maniac Mansion) which had been used to build previous LucasArts adventures. GrimE was also soon after used to create *Escape From Monkey Island*, the fourth game in the beloved pirate franchise and the first to use 3D graphics.

» [PC] Day Of The Dead, Aztec and Mayan influences run throughout the game



» [PC] Wide-lens scenes like this transition into narrow close-ups, giving the game a cinematic style.

"I THINK PEOPLE HAVE SINCE SOURED ON TANK CONTROLS BUT THEY WERE REALLY POPULAR AT THE TIME"
TIM SCHAFER

» [PC] Manny and Meche go through ups and downs together as the story progresses.

DIRECTOR Q&A

TIM SCHAFER ON THE LEGACY OF GRIM FANDANGO

How did you get the green light to make *Grim Fandango*?
I'd been interested in the Day Of The Dead since studying an anthropology class at college. Because *Full Throttle* was a hit, I had a little bit of wiggle room and management trusted me with making a Day Of The Dead game, even though they were apprehensive. It was originally called *Deeds Of The Dead* and Manny was a real-estate agent rather than a travel agent, like in *Chinatown*, which was a big film noir inspiration along with *Casablanca*.

Speaking of films, were you ever approached about turning the game into one?
Multiple times, by directors and studios. Hollywood's a weird place. Have you seen the video of a racoon watching a sugar cube in a river? They're watching it thinking, "This is gonna be delicious!" Then it dissolves and they're like, "Hey, where'd that go?" That's like every movie deal I've been involved with. But that's fine because I think games are cooler than movies.

How did you feel during the years the game was unavailable?
That was one of the main reasons we wanted to remaster it. For years there was no legal way to buy the game. Maybe you could get an old copy on eBay, but there was no legal way to download it. We wanted people to enjoy it on modern hardware with no glitches, looking nicer and sounding better. Being able to do that was really exciting.

Would you ever make a sequel?
It's a fun world to go into, but we always have new ideas. Also, the ownership of the IP is not with me. If we ever did a sequel, I'd really want to make it in Mexico. I'd want to work with a Mexican developer and have it made ideally in Oaxaca, with more people from that culture. Because in some ways it was an outsider piece. It was very respectful and reverential but I feel like there's no replacing having people who have lived it on the team.

What's next for Double Fine?
We're doing some brand-new IPs. My one is a brand-new thing: the gameplay and the characters and everything are all brand-new, so it's exciting for me. You have to add more ideas to the world once in a while. But you also have to take care of your old games. I feel like games are like a public work of art. If you made a statue in the town square you've got to clean the pigeon poop off it once in a while. If an arm breaks off you've gotta fix it. You've gotta take care of your public works of arts.

» [PC] The story unfolds through dramatic cutscenes as well as in-game narrative.

» [PC] Like other LucasArts protagonists, Manny has good intentions but has lots of clumsy mishaps.

» [PC] Puzzles are logical and often hilarious, but they do require some imagination.

KEY CHARACTERS

INTRODUCING GRIM FANDANGO'S DEARLY DEPARTED CAST

MANNY

Our charming, morally ambivalent protagonist works in a lowly role at the Department Of Death, reaping souls from the land of the living and flogging them travel packages. As he starts questioning the order of things at work, a sinister conspiracy emerges.

GLOTTIS

Tim Schafer tells us Manny's sidekick, the lovable elemental spirit Glottis, is the character he'd most like to inhabit. "Glottis has the coolest car for getting around," Tim muses. "He's born of the land and he likes to drive. He probably has the most fun."

MECHE

Since Meche was faultlessly kind during life, Manny can't understand why his system denies her a premium travel package. She leaves on foot with Manny in pursuit, and a slow-burning connection between them begins. Witty and strong, she keeps Manny and others on their toes.

SALVADOR

Deep beneath the Department Of Death HQ, an underground resistance movement is at work. At its helm is Salvador, who needs help sourcing some carrier pigeons to assist with the revolution. Coax one into your care from atop the building and he might aid your escape.

Despite these advances and innovations on the old point-and-click formula, *Grim Fandango* retained a lot of the elements LucasArts fans already adored, including witty branching dialogue. The captivating storyline takes strong cues from film noir classics *Casablanca* and *Chinatown*. It's a tale that begins at the Department Of Death: a bureau built on selling newly deceased souls travel packages to help them make their way through the Land Of The Dead. While working as a lowly salesman at the Department, Manny brings a new arrival to the afterlife called Meche. Her spotless moral record means she should in theory qualify for a ticket on the special Number Nine train heading straight to that most sought after destination, the Land Of Eternal Rest. Corrupt forces are afoot though, leading Manny to join an underground revolution, become a casino owner and captain a ship as he pursues Meche across oceans and time periods, all while sinister forces try to keep her from her just rewards. It's a grandly ambitious and frequently hilarious tale, cinematically told through frequent cutscenes and clever in-game narrative.

> *"BECAUSE FULL THROTTLE WAS A HIT, I HAD A LITTLE BIT OF WIGGLE ROOM AND MANAGEMENT TRUSTED ME"*
> **TIM SCHAFER**

Across the four chapters of the game, each of which takes place one year apart on the Day Of The Dead, there are a steady stream of taxing puzzles to overcome. These challenges seem more tactile than earlier LucasArts games and less inventory based. Tim reflects that this was a natural evolution. "After *The Secret Of Monkey Island*, while working on *Monkey Island 2*, me and Dave Grossman and Ron Gilbert would always be like, 'With some of these puzzles, your inventory is getting so cluttered.' The interface for *Maniac Mansion* had 15 verbs, then we got it down to nine for other games. *Full Throttle* had three. So we were trying to further simplify things in *Grim*," he says. Some puzzles came about because of the potential afforded by a 3D world. "The physical world gave us possibilities we didn't have before like driving a forklift around," Tim continues. "The feeling of being in a forklift and jamming it through elevator doors presented itself because of being a 3D character in a 3D space."

As the game progresses, Manny roams the evocative streets of Rubacava, which is a highlight among environments thanks to its late-night, casino-town atmosphere and wide range of engrossing locations to explore. The story shifts between open areas like this and confined, narrow scenarios with an almost

EVA

A sassy secretary with a nasal New York City twang to her words, Eva speaks about work with a weary resignation. So much so, you might not be surprised when you soon find her working underground alongside Salvador as part of his revolutionary campaign.

DOMINO

The top salesman at the Department would fit right in on *The Apprentice*. Arrogant and ruthless, his sly charm sees him sidle up to Hector LeMans as part of a corrupt network that prevents people making their way to the Land Of Eternal Rest.

HECTOR

At the heart of the underworld's corruption is Hector LeMans, a crime lord running a ticketing scam. He won't hesitate to 'sprout' adversaries, which involves turning them into a pile of wildflowers "in a horrifying bouquet of pain and fragrant suffering" as Salvador puts it.

ARTIST Q&A

PETER TSACLE ON DIRECTING GRIM FANDANGO'S ART

Grim Fandango brought LucasArts adventures into 3D. How was it making that shift?

Everything at LucasArts had historically been 2D, and made using hand-drawn, proprietary internal software. But once the studio started doing some of the newer *Star Wars* games like *Rebel Assault*, they started to integrate 3D in a rendered way. And actually in *Full Throttle* there was some of that too. So it was creeping in slowly from 1994 when I started, over the next couple of years. At the time it was like, "We're going full 3D now and we're going to have to buy super-expensive Silicon Graphics machines."

What do you recall about starting on the project?

After *Full Throttle*, I worked on two other games while Tim geared up for the project. Tim said, "The studio's going to give us all the money and all the time we need to work on these crazy ideas." That just doesn't happen any more! I was the art director but Peter Chan did all the concept art and was essentially our cinematographer. I designed most of the main characters, but it was a collaboration, and the environments were all Peter. He was the mastermind behind much of the look.

How was it designing _Grim Fandango_'s characters?

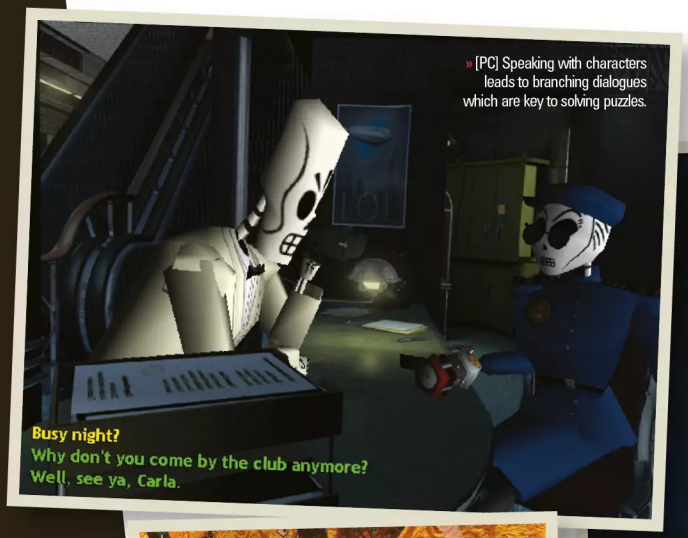
It was a super fun process. You had the script and the story, then the high bar Peter was setting for the environment and look, and it was about finding a way for the characters to mesh within that. There was also the cultural side: the Day Of The Dead motifs and little figurines. It was about finding things that were interesting but also producible in stripped down, low-poly designs.

How about cutscenes?

All those expensive Silicon Graphics computers were put through their paces on weekends to make these super-elaborate, long sequences. I recall one sequence between chapters where Manny's in an automat and the camera flies down a cactus and then he's on a balcony. There were so many lights that our computers couldn't render it, so we had to call in a favour from someone at ILM [Industrial Light and Magic, Lucasfilm's visual effects division].

What came next for you?

We started an untitled PlayStation 2 project for about a year. That game would have been phenomenal. It was a wacky space adventure game with flying space cars. Then we all decided to leave, so it never happened. Since then I've worked for a lot of different companies including Telltale Games for about nine years. Now I work at Free Range Games. Last year we put out *Lord Of The Rings: Return To Moria*, a survival craft game which has really found its audience. I highly recommend it.



» [PC] Speaking with characters leads to branching dialogues which are key to solving puzzles.

» [PC] The Land Of The Living is depicted as abstract and otherworldly.

» [PC] Hanging out with beat poet Olivia and her shady love interest Nick in The Blue Casket night club.

escape room quality. "You do think about pacing, and ups and downs with the levels of puzzles," Tim reflects on designing the locations of the game. "In *Grim* we were thinking mostly of hubs. Some spaces ended up being transitional between the hubs. Whenever we have a non-linear series of puzzles, you need to open up into a bigger space like Rubacava or El Marrow, and then in between those you have a series of pinch-points with more linear puzzles just to get some variety."

> *"FOR YEARS THERE WAS NO LEGAL WAY TO BUY THE GAME"*
> **TIM SCHAFER**

As well as artwork and game design, it would be remiss of us to neglect another ingredient that equally helped make the game sing: its award-winning soundtrack. Composed and produced by Peter McConnell, in Tim's words it mixes "mariachi bands, jazz and crazy wailing reed instruments" to elevate the atmosphere of the game in a striking way. When *Grim Fandango* was remastered by Double Fine Productions in 2015, the soundtrack was re-recorded by Peter McConnell with the Melbourne Symphony Orchestra, replacing synthesised sounds with real instruments. *PC Gamer* described it as, "One of the best soundtracks in PC gaming history."

Grim Fandango was acclaimed on its 1998 release and won several Game Of The Year awards. Despite being met by adulation by many of those who played it, the commercial tides were changing for adventure games as a new millennium approached. LucasArts soon after moved away from creating adventure games to focus more on *Star Wars* action games. Tim left the company and founded Double Fine Productions, but eventually resurrected *Grim Fandango* years after it fell out of print by licensing the IP from Lucasfilm's parent company Disney. The remaster arrived in 2015 and made the game widely available on all modern platforms. It means enjoying it today is very easy, and you can even switch back to the original graphics if you prefer a retro experience.

Tim has numerous highly regarded games to his name, but he clearly holds a special place in his heart for *Grim Fandango*. When we speak, he even shows us his Manny Calavera phone case. "Beyond me, there was a collection of some of the most talented people I've ever worked with, all in one place at one time and doing their best work," he says on reflection. "It created this master collaboration and a really unique world." ✱

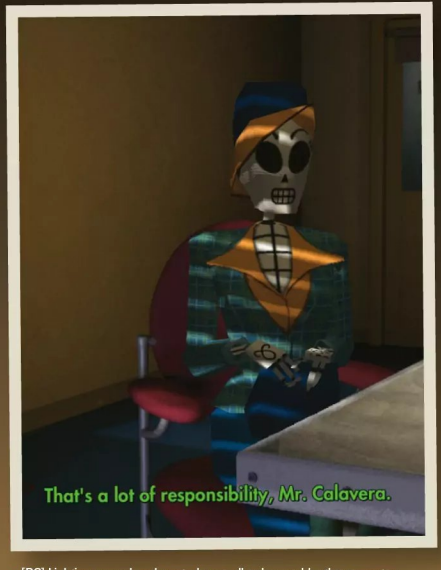
REMASTERING GRIM FANDANGO

HOW DOUBLE FINE PRODUCTIONS IMPROVED A CLASSIC

Resurrecting *Grim Fandango* for modern platforms in 2015 presented Tim Schafer and Double Fine with a dilemma. "If you want to remaster something you need to go back to the source materials, but the source materials were starting to fall apart," Tim tells us. "We knew that a lot of the original voice audio and the original music were on magnetic tapes. And magnetic tapes are not forever. Some of them were on things like SCSI drives and no one even had a way to read them." Tim credits the late, great LucasArts audio engineer Jory Prum with helping the team to retrieve and digitise the files they needed, which also enabled Peter McConnell to remake his superb soundtrack.

"I was just very excited," Tim continues. "We introduced new rendering models, like being able to have dynamic lighting on Manny when he lit his cigarette and he would have a glow on him. We could add things like have venetian blinds cast shadows on his face, which is just such a film noir thing and such a fun thing to do."

The special features include commentaries and interviews from the original team. "We didn't want to just remaster the game, but also create the context for the game and surround it," says Tim. "We're old people now and we were young people in our 20s then setting out to do this thing. So it was a team reunion." You can check out *Grim Fandango Remastered* on all modern systems.



» [PC] Lighting, sound and controls are all enhanced by the remaster.

Hardware Heaven

Xbox 360 S

» **MANUFACTURER:** Microsoft » **YEAR:** 2010
» **COST:** £199.99 (launch), £40+ (today, boxed), £25+ (today, unboxed)

Though the Xbox 360 had captured the imagination of the gaming public, its popularity proved costly for Microsoft as hardware design flaws led to a high failure rate, creating a repair bill of over $1 billion for the manufacturer. The company was understandably keen to produce a mid-generation refresh of the hardware as a result, and four-and-a-half years into the platform's life, the Xbox 360 S arrived. The new console was visually similar to its predecessor but smaller and quieter, with considerably more ventilation.

The Xbox 360 S ditches a number of features from the original model – customisable face plates are out, as are the ports for proprietary memory cards. The original hard disk form factor was replaced, with the new models fitted internally. However, the console did gain some features, including a third USB port on the rear of the console, a built-in port for the Kinect add-on and built-in wireless networking. These features, combined with the greater reliability of the console compared to the original model, have cemented the Xbox 360 S as the preferred model for fans today. ✱

ESSENTIAL GAME
The Orange Box

There aren't many compilations that top this one for sheer quality. For a start you've got *Half-Life 2*, a regular inclusion on lists of the greatest games of all time, as well as its two episodic expansions. Then there's *Portal*, a brilliant physics-based puzzle game that forces you to think differently, and *Team Fortress 2* is still fun if you can get people together for it. There are certainly cheaper Xbox 360 games out there, but the asking price is more than reasonable for what you'll get out of this.

Xbox 360 S fact

■ Xbox 360 S consoles initially came with a 250GB hard disk installed. Later models instead included 4GB of flash storage on the motherboard, retailing for £149.99.

PROCESSOR: 64-BIT IBM XENON POWERPC CPU (TRIPLE CORE, 3.2GHZ)

GRAPHICS: CUSTOM ATI XENOS GPU (500MHZ, 240 GFLOPS)

MEDIA: DVD-ROM (UP TO 8.5GB, 7.9GB USABLE)

STORAGE: OPTIONAL HARD DISK WITH CUSTOM HOUSING, OPTIONAL USB MEMORY UNIT

OPERATING SYSTEM: CUSTOM XBOX 360 SYSTEM SOFTWARE

MEMORY: 512MB SHARED GDDR3 RAM

SYSTEM SUPPLIED BY **EVAN AMOS**

TOMONOBU ITAGAKI

Director and producer of some of the most praised fighting games and beat-'em-ups developed by Team Ninja, Tomonobu Itagaki upholds to his somehow nefarious reputation, frankly answering Retro Gamer's questions

Words by Guy Miquel-Albert

Tomonobu Itagaki started his career in the videogames industry at Tecmo, quickly creating and supervising the Team Ninja team, where he developed the first four *Dead Or Alive* fighting games, the first two 3D *Ninja Gaiden* adventures and the early *Dead Or Alive Xtreme Beach Volleyball* games. After leaving the company in 2008, he later created Valhalla Games Studios, which developed a Wii U exclusive action game, *Devil's Third*. More recently he taught game design in Italy, but it now producing new videogames at Itagaki Games.

» Tomonobu Itagaki hard at work on something. What exactly? We don't know.

You grew up in the countryside of Japan, surrounded by nature. Can you tell us more about it, and how it impacted your later videogame productions?
Before answering this question I'd like to know why you're asking me this. I'm sure there are similar places in the United Kingdom. Instead of just playing videogames, it would be a good idea to start playing in nature. If you do so, I think you will naturally understand the relationship between nature and playing in general. However, you need to be careful when playing in nature. Don't forget to bring a knife, a slingshot, a rope, gunpowder and shurikens. Carrying them or not can make a big difference.

What was your first contact with videogames, and in what context?
When I was 15 years old, my father bought me a game called *Baltic Kantai wo oe*, meaning *Hunting For The Baltic Fleet*. This game depicts the Battle Of The Sea Of Japan, the decisive naval battle that led to Japan's victory in the Russo-Japanese War.

You seem to be fond of military history. Where does this interest in history come from?
If you don't know history, you can't create anything new. People who want to become creators should study history, especially military history.

And your interest in aircraft?
I particularly like these air fighters: the Japanese A6M2, the German Ta 152, the American P-51D, and the Italian MC.202.

Could you give us more details about the way you applied your military knowledge to your work as a director and a producer?
In order to overcome competing products, rational and sophisticated strategies and tactics are required. Learning about war gives you that perspective.

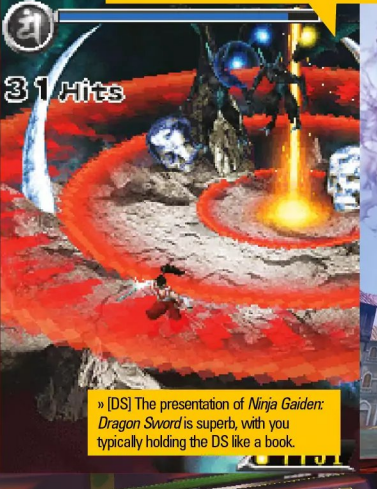
And how did you apply that knowledge to your communication and advertising strategy?
It's all about drinking alcohol. If you do it seriously, it's not fun at all. Discussions get better over a drink. You only need to be sober when things get tough.

Which videogames were your favourite, growing up?
It's *Mari-chan's Close Call*. It's a great game where you play rock-paper-scissors against the computer, and when you win, the girls start taking off their clothes.

In Waseda University you explained you were spending a lot of time playing mahjong, to what extent did it influence your productions?
I learned from mahjong and backgammon how to manage my luck to win. Mahjong and backgammon are supposed to be games that require 70% luck and 30% skill, but don't get it wrong, 30% skill also includes the ability to manage luck, so in the end, it's a game where 100% skill determines victory. This logic is most useful in the fighting game *Dead Or Alive*. A lot of people used to say crazy things such as luck mostly rules the game in *Dead Or*

» [Xbox 360] The Las Vegas stage from *Dead Or Alive 4* features some superb Danger Zone settings.

> "The number of polygons in the Saturn version of Kasumi is 550. That's 10% more than Virtua Fighter's 500 polygon characters"
> Tomonobu Itagaki

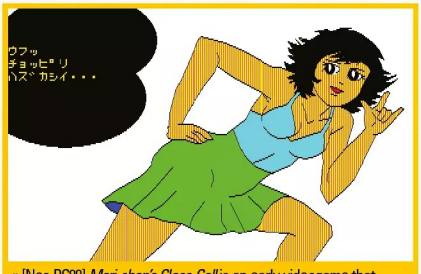


» [DS] The presentation of *Ninja Gaiden: Dragon Sword* is superb, with you typically holding the DS like a book.

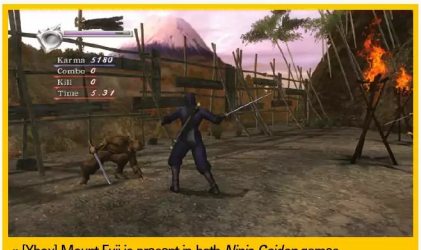
» [Xbox 360] Beheading your opponent is obviously the ultimate move, making NPCs incapable of fighting furthermore.

SELECTED TIMELINE

- **CAPTAIN TSUBASA IV** [1993] SUPER FAMICOM
- **TECMO SUPER BOWL** [1993] SNES
- **DEAD OR ALIVE** [1996] ARCADE, SATURN, PLAYSTATION
- **DEAD OR ALIVE 2** [1999] ARCADE, DREAMCAST, PS2
- **DEAD OR ALIVE 3** [2001] XBOX
- **DEAD OR ALIVE: XTREME BEACH VOLLEYBALL** [2003] XBOX
- **NINJA GAIDEN** [2004] XBOX
- **NINJA GAIDEN BLACK** [2005] XBOX
- **DEAD OR ALIVE 4** [2005] XBOX 360
- **DEAD OR ALIVE: XTREME 2** [2006] XBOX 360
- **NINJA GAIDEN: DRAGON SWORD** [2008] DS
- **NINJA GAIDEN II** [2008] XBOX 360
- **DEVIL'S THIRD** [2015] WII U



» [Nec PC88] *Mari-chan's Close Call* is an early videogame that Itagaki enjoyed and requires you to win rock-paper-scissors games to undress girls.



» [Xbox] Mount Fuji is present in both *Ninja Gaiden* games produced by Tomonobu Itagaki.

» [Xbox] A few camera issues aside, *Ninja Gaiden* proved to be an excellent return for the 8-bit franchise.

Alive, but that's a completely different understanding. In *Dead Or Alive*, those who have the skills to manage their luck and get it on their side win. Although it's not 100%, 90% of the fight in *Dead Or Alive* is determined by the skill of the player.

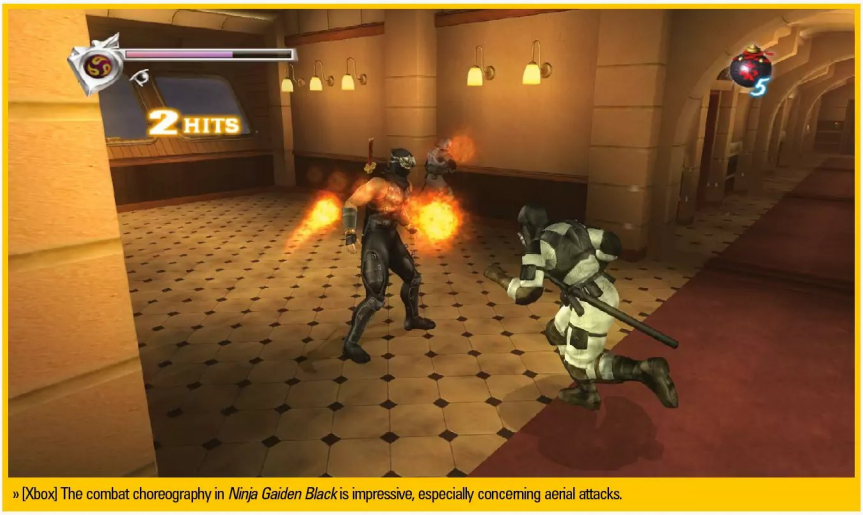
> "Keep attacking and never give up!"
> Tomonobu Itagaki

Generally, what has inspired you to create games like *Dead Or Alive* and *Ninja Gaiden*? How would you define your personal touch?

I created *Dead Or Alive* because the company was requesting it, so there was no impetus for it. My mission was to defeat *Virtua Fighter* and I completed it. On the other hand, *Ninja Gaiden* is the first game I created based on my own ideas and my own strategy, rather than the company's orders. The inspiration was *The Legend Of Zelda*. It was a very interesting game and it made me want to make games in this genre. Was that *Ocarina Of Time*? It was about 30 years ago, so I don't remember much.

Which projects did you work on at Tecmo, until *Dead Or Alive* in 1996? What were your roles? Were there other games you worked on other than *Tecmo Super Bowl* and *Captain Tsubasa IV*?

That's right. I worked on the *Tecmo Super Bowl* and *Captain Tsubasa* games. These games were requested by the company. When I finished developing the *Captain Tsubasa* game, I told my boss, "If Tsubasa-kun kicks the ball, the goal will be scored anyway, right? It's boring, this kind of game is boring." I was then put in charge of *Tecmo Super Bowl*. To be more precise, they created an American football game that was completely different from *Tecmo Super Bowl*, but it was so boring that the company cancelled it. It was a groundbreaking American football game that allowed players to throw punches and somersault kicks, but it was a real shame. And after that, as everyone knows, we started developing *Dead Or Alive*.



» [Xbox] The combat choreography in *Ninja Gaiden Black* is impressive, especially concerning aerial attacks.

» [Arcade] *Dead Or Alive* was a superb alternative to *Virtua Fighter* and *Tekken*.

» [Dreamcast] Here's Ein giving Jann-Lee a good old kneeing in *Dead Or Alive 2*. That's gonna leave a mark.

» [PlayStation 2] *Dead Or Alive 2* on the PS2 was visually inferior to the Dreamcast version, but still a great game.

How were the teams you worked for structured? Before *Dead Or Alive*, how many developers and graphic designers,worked on the projects you were appointed to?
Before *Dead Or Alive*, there were about 12 people working in the team. When *Dead Or Alive* was decided to be produced, the number of staff increased approximately to 50. It increased all at once. After all, it was a game in which the fate of the company was at stake.

How was Tecmo's financial situation before you were appointed director on *Dead Or Alive*? Was it the company's final chance game?
That's right. The company had been in the red for three consecutive years, and the owner was furious. I wonder what he was going to do if *Dead Or Alive* didn't sell.

What kind of challenges did you have to face porting *Dead Or Alive* and *Dead Or Alive 2* to the Saturn and Dreamcast consoles from their arcade versions. Could you give us details about these development years?
The port to the Saturn console went smoothly. The expression method that combines polygons that transform sprites with two-dimensional backgrounds was already technically established with the development of *Virtua Fighter 2*. It would have been boring to just imitate that, so we used a third processor called DSP to display more polygons than *Virtua Fighter*. The number of polygons in the Saturn version of Kasumi is 550. That's 10% more than *Virtua Fighter*'s 500 polygon characters. The port I had the hardest time with was the PlayStation's. There wasn't enough memory, and when I created it at first, in a classic way, I couldn't store all the motion data in memory. Therefore, half of the sound memory was diverted to motion memory. I bowed down to the sound guy and took the memory away from him. Concerning the Dreamcast, I didn't have any trouble whatsoever because the console was compatible with the NAOMI arcade board.

How and why was Team Ninja's structure created, how many people were in the team, what were the working habits, how did you supervise it and why so much mystery about the team?
When we created Team Ninja, there were 50 people in the team, as I said earlier. When leading a team, I considered it a matter of course that the developers would be familiar with computers, and I referred to books about military tactics and military guidelines. For reference, let me tell you my favourite speech. It's this sentence, "Keep attacking and never give up!"

Where did the Danger Zone concept come from in *Dead Or Alive*?
The terrain effects were digitally reproduced. This is a common method often used in wargame simulations. The concept is that if you are in a swamp, your movement will be slower, or if you are in a forest, it will be harder for missiles to hit you. We visualised it and incorporated the content into a format that suited the fighting game. Only the Explosive Danger Zone could be implemented on the Model 2 board and Sega Saturn, but Danger Zone became more interesting with each successive game of the series. I think Las Vegas in *Dead Or Alive 4* was a masterpiece. How did I come up with the idea? It's alcohol. All of that nonsense was thought up while drinking.

How did you have the Counter fight skill idea in *Dead Or Alive* and how hard was it to create it?
The original idea was conceptualised by Katsunori Ehara. What I did was create the concept of Critical Counter Hold. The hold, which was a simple technique in *Dead Or Alive 1*, was made into something exciting in *Dead Or Alive 2*. Critical Hold turned the game around in one shot and was a nice idea.

CRAFTED BY ITAGAKI

Some of Tomonobu Itagaki's finest works

DEAD OR ALIVE

■ Released in 1996 for the arcade and ported to the Saturn and PlayStation consoles in 1997 and 1998, this was developed under Tecmo's request to challenge the *Virtua Fighter* series, materialising the Team Ninja studio in order to save the firm from going bankrupt.

DEAD OR ALIVE 3

■ Developed in one year to ensure a release as an Xbox launch line-up game, *Dead Or Alive 3* put the Microsoft Team Ninja partnership into effect, announcing a series of contributions to come. Possibly less complete than *Dead Or Alive 4*, but with great historical value.

DEAD OR ALIVE XTREME BEACH VOLLEYBALL

■ Considered as a relaxing spin-off to the *Dead Or Alive* main fighting games series, *Dead Or Alive Xtreme Beach Volleyball* is a simulation game where you need to convince charming NPCs to play volleyball in your team.

NINJA GAIDEN BLACK

■ Possibly the ultimate version of the first *Ninja Gaiden* 3D iteration, including expansions, new features, new opponents and... an even more challenging difficulty mode. A Mission mode is also included, as well as access to online leaderboards.

NINJA GAIDEN II

■ Improving on its predecessor in terms of gameplay variety, the second 3D *Ninja Gaiden* game is also a little bit more accessible from the outset, making it possibly less cult to the hardcore fans. AI behaviours depend on the way the opponents are dismembered.

THE TEKKEN/DEAD OR ALIVE WAR

How Dead Or Alive needed Tekken to exist in the media

■ In the Nineties and the early Noughties, the fighting videogame scene saw on one side SNK facing Capcom and on the other side Tecmo and Team Ninja's *Dead Or Alive* facing Namco and its *Tekken* games. Such rivalry was common and Tomonobu Itagaki never ceased to criticise the *Tekken* franchise mostly in the Western press, considering himself at some point as Katsuhiro Harada's senpai, in other words, as the *Tekken* producer's elder, when he discovered they attended the same university. Tomonobu Itagaki started a direct war with Namco and Katsuhiro Harada, according to the latter, in order to catch up with the *Tekken* games and to be on the media front. Harada also recently described Itagaki on a social network as being strongly strategic and analytic, "Mr Itagaki recognised that Tecmo couldn't compete against this level of marketing and publishing power. As a result, he explored media strategies using not only print magazines but also the emerging internet media of the time. […] Among his various strategies, one was to deliberately 'bite' at *Tekken* to draw media attention. In doing so, he even called me out by name and criticised *Tekken*'s game design and other aspects."

Harada also stated, "He believed that winning a war required thorough reconnaissance of the enemy's resources, so he conducted a detailed analysis of the *Tekken* project's capabilities. In his personal office, he even displayed a chart analysing Namco's *Tekken* project team's strength."

According to Harada, before advanced marketing strategies could be implemented in the videogame industry, Tomonobu Itagaki was already capable of defining and comprehending them, such as "*Tekken*'s sales figures and customers' demographics." This analysis paid off for Team Ninja and gave the *Dead Or Alive* games an orientation to their styles and game designs, as well as their technical achievements, with Itagaki trying to counter *Tekken* in areas Namco's fighting game couldn't compete.

Eventually the two fighters reconciled after the "war", as Harada shares in his post. Itagaki called Harada and explained to him over dinner the latter was his "comrade-in-arms", and that he genuinely respected him, Namco and *Tekken* and apologised for everything, admitting, "When I compared the power dynamics in development, sales and publishing, it was clear that a straightforward approach wouldn't work. I had to employ every strategy I could. I'm sorry for everything."

Seamus Blackley got in touch with you so Team Ninja would work exclusively for Xbox. Could you give us details about your meetings? How did your first meeting go? How long did it take you to give a favourable answer?
Seamus was on a business trip to Japan to help Japanese third-party studios join the Xbox ecosystem. And one day, he stopped by my workplace at Tecmo. All Seamus said to me was one thing, "Itagaki-san, please make *Dead Or Alive* for Xbox." So I answered with only one sentence, "How many times more powerful is the Xbox than the Playstation 2?" Seamus answered, "Six times. Even if we estimate at a minimum, it's four times more powerful than the PS2." After this short conversation, we shared information such as Xbox's release date and price, and as a result, I decided to get into Xbox right away from then on. Did we go out for drinks after that? Of course. My games are made of alcohol.

You often said Japanese developers should also check what is going on in the West, videogame wise. Did that weigh in the balance when choosing Xbox as a partner?
I only chose the Xbox because it was six times more powerful than the PS2. I just wanted to win. This requires a high-performance machine. I want you to think about it and see it. If you were a pilot, would you go through the trouble of flying an underpowered fighter jet? If you'd make such a stupid choice, no matter how many lives you have, it won't be enough.

Which *Dead Or Alive* game is your personal favourite and why?
It's *Dead Or Alive 4*. My order of preference is *Dead Or Alive 4*, *Dead Or Alive 3*, *Dead Or Alive 2* and eventually *Dead Or Alive*. It's no surprise since we've always made the game evolve and improve. *Dead Or Alive 4* can be considered as being my culmination.

Where did the *Dead Or Alive Xtreme Beach Volleyball* games idea come from?
In between intense game development sessions, I would like to refresh myself on a tropical island. Alcohol and the sea. Wouldn't it be great? *Dead Or Alive Xtreme Beach Volleyball* is something I created to kill time. I am very grateful the game has been well received by so many people. Ah, it also comes from my own experience of having my presents thrown away by girls.

» [Dreamcast] *Dead Or Alive 2* allows you to pull off some spectacular team-up attacks like this one.

» [Xbox] *Dead Or Alive 3* was released as an exclusive Xbox launch title. It gained plenty of acclaim thanks to its slick gameplay mechanics and stylish visuals.

What challenges did you face creating the first *Ninja Gaiden* game in 3D?
The development period lasted four years, which was quite a long time, but I didn't meet any particular difficulties. There was plenty of time for trial and error.

You once said you thought the first *Ninja Gaiden* was far from being perfect. How do you think the second game improved on its predecessor?
Play *Ninja Gaiden 2* and see for yourself. There are lots of improvements.

***Ninja Gaiden* and *Dead Or Alive* videogames let the player travel all over the world. Did you have to travel for research to develop your games?**
When you go investigate and get documentation on site after you start making a game, you can never achieve it in time. I have travelled to many different countries, so I used that experience to my advantage.

Is there any place that you like to meditate in particular, in order to rest and 'recharge your batteries'?
A bar in Ginza is my place of relaxation. I don't need a girl to entertain me. I like authentic bars.

Was it risky to start a project such as *Ninja Gaiden: Dragon Sword*, since its game design is particularly original?
The development costs were not that important, and there was no concept of risk in a project of that size. I just developed it the way I wanted and repeated trial and error as much as I wanted. I think the result is a very challenging game. It's one of my proudest works.

What is your personal opinion on the *Dead Or Alive* Hollywood film?
I saw it for the first time recently, but I think it's quite interesting. I recommend it to *Dead Or Alive* fans.

» [Xbox 360] Dismembering in *Ninja Gaiden 2* usually doesn't leave much left of the opponent.

Ninja Gaiden's challenge is very difficult, which made, among other things, its reputation. Why did you make the _Black_ version even more difficult?
I didn't make it unreasonably difficult. Hayabusa has more manoeuvrability and I think it makes the game more challenging.

> "Ninja Gaiden: Dragon Sword is one of my proudest works"
> Tomonobu Itagaki

How did you take advantage of the original Xbox's power with _Ninja Gaiden_ and _Dead Or Alive 3_?
I can't generalise because I used the machine's power all over the game. If you really want to know, buy it on Xbox Series X and see for yourself.

Was it challenging to implement so many weapons in _Ninja Gaiden_ and _Ninja Gaiden 2_? How did you choose this weapon and not another? Which was the most difficult one to implement? And the most fun?
Since they are all major weapons, I was able to incorporate them all very naturally. I particularly like the Dragon Sword.

What challenges did you face to adapt the opponent's AI reaction to its dismemberment status in _Ninja Gaiden 2_?
It simply expresses the last action a person takes when they are prepared to die. I think this kind of thing depends on the individual's view of life and death.

» [Wii U] *Devil's Third* is the first videogame Itagaki produced after leaving Tecmo.

Do you have any fun anecdotes to share during those development years at Tecmo, working on _Dead Or Alive_ and _Ninja Gaiden_ with _Team Ninja_?
A lot of things happen when you're developing something while drinking alcohol. It was all fun.

***Devil's Third*'s single-player mode has been heavily criticised for its opponents' AI, when one of your work's trademarks is fantastic adaptive AI and a strong level of exigence. Were there issues during its development?**
I had no control over THQ going bankrupt, that was the only issue. Although there are some things left unfinished in terms of game design, I think *Devil's Third* was innovative for a game of its time. If I were to make it again, I would of course improve it further.

***Devil's Third*'s multiplayer was successful though. How did you work differently on this part of the game?**
In the terminology of board simulation games, there are three layers: Strategic Level, Operation Level, and Tactical Level. *Devil's Third* is a game that incorporates and integrates all of these layers of gameplay. This is groundbreaking. I'm really happy that we got some praise for the multiplayer.

Tell us more about your teaching years? How was it sharing your experience?
I spent three years in Italy lecturing and teaching students how to make games. I like the Italian temperament. Everyone came up with fun games and presented them to me.

DUAL-SCREEN NINJAS

A look at the highly underrated Ninja Gaiden: Dragon Sword

■ Tomonobu Itagaki considered children were requesting a *Ninja Gaiden* game on Nintendo's DS and admittedly tried to take advantage of the console's uniqueness to produce a quite original videogame. *Ninja Gaiden: Dragon Sword* offers distinct ninja-style action, holding the console like an open book and fighting opponents using the stylus. Combos can be achieved depending on how the player draws lines on the touch-screen, while Ninpos can also be launched by drawing Sanskrit characters on the screen. Such game design choices could nowadays be considered risky, but Itagaki specifies for **Retro Gamer** that development costs were not heavy, implying that the project wasn't too risky for Team Ninja and Tecmo. The combat system proves to be successful in giving a great and challenging fighting experience, despite the game being deprived of bloody scenes. While some might find the game possibly too, *Ninja Gaiden: Dragon Sword* still provides a more than decent lifespan and good replay value for an action game published on a handheld console.

Harada Katsuhiro explained your former rivalry recently on a social network. Was he accurate? Which message would you send him publicly today?
Mr Harada deliberately didn't mention it, but the reason why Namco and I didn't get along was not because of the *Tekken* team, but because Namco's advertising team was disrespectful to Tecmo. This story was only published in a Japanese game magazine, so it can't be helped that Western 3D fighting game fans don't know about it. I like Harada-kun, and I'm currently rooting for *Tekken*. With Tecmo unable to make a sequel to *Dead Or Alive*, they'll have to rely on *Tekken* to do their best. Oh, there's also a new *Virtua Fighter* coming out. I'm sure the new *Virtua Fighter* will be great. This year and next year are going to be really fun!

Can you tell us what you are currently working on at Itagaki Games?
I'm making a new game. Sorry, but that is still a secret. Please look forward to it! ✱

Medal Of Honor: Frontline

SAVING PRIVATE RYAN IT IS NOT

» PLAYSTATION 2 » 2002 » EA LOS ANGELES

I've loved cinema for as long as I've loved videogames, so whenever a game draws film-like comparisons from the gaming press, I'll always be sure to check it out. *Medal Of Honor: Frontline* is one such example of a game that garnered such comparisons on release, but inevitably, failed to live up to the promised hype.

Four years previous to *Frontline*'s release, Steven Spielberg had made *Saving Private Ryan*, an excellent, Oscar-winning World War II movie that was elevated by its strong cast, dramatic score and a truly harrowing Omaha Beach opening that was as unforgettable as it was visceral. Unsurprisingly (and perhaps rather cynically) Omaha Beach became *Frontline*'s opening level, with the reason being that the new generation of consoles were equipped to bring the awfulness of that battle to life.

The decision makes sense as Steven Spielberg already had a connection to the series due to his involvement with the original *Medal Of Honor* on PlayStation, but as our own Paul Rose pointed out in his last column, film and videogames are very different mediums.

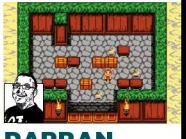
There's no denying that EA Los Angeles nailed the tone of Omaha Beach, with soldiers vomiting as enemy planes roar overhead, and white-hot gunfire streaking across the grey skies, but the humanity of Spielberg's film is soon lost as the opening assault quickly degenerates into just another mindless videogame slaughter. That's not to say it's not entertaining, but when you watch *Saving Private Ryan* you see heroism amongst the horror, you're thankful that you'll never have to (hopefully) experience what those before you had to endure – *Frontline* simply doesn't evoke the same feelings.

Ironically, while *Frontline* could never hope to match the script, setpieces and story of the film it was frequently compared to, it did manage to *feel* like an interactive war movie and that's largely thanks to some solid scripted events and a truly memorable score by Michael Giacchino, which does much of the game's heavy lifting.

I still think *Frontline* is one of the better first-person shooters you can play on Sony's console, particularly from a story perspective, but when it comes to conveying the darkness and horror that the many men and women of World War II experienced, I'll stick with *Saving Private Ryan* and similar movies thanks. They just feel far less cynical. ✱

>> This month we're testing the Octopus Arcade Stick to see if you should let it get its tentacles into your classic consoles. Over the page, you'll find reviews of Gal Guardians: Servants Of The Dark, Assault Suit Leynos 2: Saturn Tribute and Beyond The Ice Palace II

★ PICKS OF THE MONTH



DARRAN

Evercade: Indie Heroes Collection 4

I've always enjoyed the Evercade's *Indie Heroes* range, as it features something for everyone. I've had lots of fun with *Soko Banana*.

NICK

Octopus Arcade Stick

Whether I've been playing PC Engine shoot-'em-ups or hammering foes in *Virtua Fighter 5*, this has just been fantastic all month long.

» The Octopus intends to fulfil your arcade control needs for just about every major retro console.

Octopus Arcade Stick

ONE STICK TO RULE THEM ALL?

INFORMATION

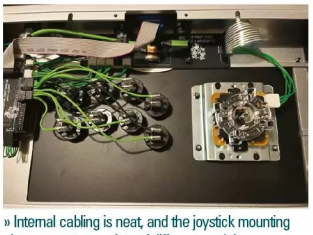
» **RELEASED:** OUT NOW
» **PRICE:** $449 (APPROX. £340)
» **PUBLISHER:** TR FIGHT STICK
» **BUY IT FROM:** TRFIGHTSTICK.COM

If you're like us and spent a substantial portion of your youth in the arcades, you'll probably agree with us when we say that some games are simply best enjoyed with a good joystick. Unfortunately, good joysticks rarely come cheap and tend to take up plenty of storage space, which can be a problem if you've got an extensive collection of retro hardware that you need to buy dedicated peripherals for. TR Fight Stick aims to solve that problem with the Octopus Arcade Stick, a premium controller that supports over 20 different platforms old and new, from the NES and Mega Drive to the Switch and PS5.

» The Sanwa joystick and buttons are proper arcade-grade parts that feel great to use.

From the moment you open the box, it's clear that the Octopus is a serious piece of kit for serious players. The aluminium body is weighty, the rubber pads on the bottom keep it from slipping around and the stick and buttons are genuine arcade parts from Sanwa. There's a switch to disable the Start and Home buttons to avoid penalties during competitive play, and another switch to change between d-pad, left and right stick functions if needed. Buttons can be set to regular fire or turbo fire independently. An OLED screen displays status information during regular use, and functions as the VMU display when used with a Dreamcast.

We tested the Octopus with a wide variety of classic and modern consoles, and it performed almost flawlessly for us, offering responsive control that made fighting games, shoot-'em-ups and



» Internal cabling is neat, and the joystick mounting plate supports a variety of different models.

BRIEF HISTORY

» TR Fight Stick is based in Istanbul, Turkey, and founded by Yunus Emre Sogukkanli, an arcade enthusiast and stunt coordinator whose film credits include *Skyfall* and *The Water Diviner*. Yunus put those skills to use in a promotional video for the Indiegogo campaign for the Octopus, which was fully funded just six hours after it launched in November 2023. The Octopus was originally expected to be available in summer 2024, but suffered delays due to production issues.

✱ SUPPORTED FORMATS

▼ VIA USB-C (INCLUDED)

PLAYSTATION 5 • PLAYSTATION 4 • PLAYSTATION 3 • SWITCH • XBOX 360 • PC • MEGA DRIVE MINI • ASTRO CITY MINI • NEO GEO MINI • PLAYSTATION CLASSIC • XBOX (VIA OCTOCABLE EXTENSION, SOLD SEPARATELY)

▼ VIA RJ45 (SOLD SEPARATELY)

NES • SNES • NINTENDO 64 • GAMECUBE • SATURN • DREAMCAST • PC ENGINE • TURBOGRAFX-16 • PLAYSTATION/PS2 (SINGLE CABLE)

▼ VIA DB15 (SOLD SEPARATELY)

MEGA DRIVE • NEO GEO

» The replaceable Octoplate control panel consists of a Glanova glass layer and a steel layer.

» The OLED screen is bright and clear, and provides status information as well as a VMU display.

» The tournament lock and stick mode switches both offer enough resistance that you won't flip them accidentally.

» The USB-C and RJ45 connectors are good, but the fit between the central DB15 connector and cables could be better.

» Here's the Octopus with a PS5 DualSense for scale – as you can see, it's a beefy boy.

classic arcade conversions a joy to play. As standard it comes with a USB-C to USB-A cable that will work on the majority of modern formats, from the PS5 and PC to the Switch and mini-consoles. Support for retro hardware is provided via additional Octocables, priced at $14.90 each. Most of them use the RJ45 connector, which feels nice and secure. Dreamcast users get a nice little perk in the form of ten built-in virtual memory cards.

The only complication with the multiformat compatibility is that you need to set the Octopus to the appropriate mode for the system you're using it with, which involves holding a specific button combination when you connect it. It's hardly onerous, but the combinations can be easy to forget so you should keep some form of reference guide handy, though it does remember the last setting you used.

The stick is built for customisation, primarily using the Octoplate layout panels ($49.90 each). These allow you to replace the standard Sega-style layout with others, including a Taito Vewlix-style layout and an option with no joystick, and TR Fight Stick helpfully provides artwork templates for these too. The company even sells the Kraken, a spinner controller for supported games, at $149.90 for the controller and Octoplate. Internally, the Octopus is spacious and well-constructed.

The only real issue we encountered is that the cables supplied for the Mega Drive and Neo Geo felt somewhat loose in the DB15 connector, and could be prone to disconnection if moved – fine if you're playing on a table, but maybe troublesome if you keep the stick in your lap. There are screw holes on the connector plate to provide a more secure fit, and we hope a future run of cables will utilise them. Other than that, it's hard to really find anything to complain about. It might have been nice to use some of the internal space as storage for the detachable cables, but that could cramp the style of those intending to customise the system.

There is also a small list of notable systems that the Octopus doesn't support – the Xbox One and Xbox Series S/X being the biggest omissions. TR Fight Stick has advised us that the lack of support for them is down to Microsoft's authorisation policies for third-party accessories, and this situation is not expected to change. The most prominent older consoles not currently supported are the Wii and Wii U, which TR Fight Stick tells us that it does want to support, but there are no solid plans at present.

While there's no denying the quality of the Octopus, the $449 price tag before shipping is daunting, even in comparison to the top line offerings from other manufacturers such as the Mayflash F700 Elite (£179.99), Hori Fighting Stick Alpha (£199.99), Nacon Daija (£249.99) and Victrix Pro FS (£339.99). As a result, the Octopus is really best suited to players planning to take full advantage of the multiformat functionality, who stand to save both space and money by doing so. It's an item that targets a hardcore crowd, but that crowd will certainly be happy with it. ✱

In a nutshell

It's pricey, but there's a market for the Octopus. Those who do splash the cash should find themselves satisfied by its excellent quality, compatibility and customisation potential.

PICK OF THE MONTH

Gal Guardians: Servants Of The Dark

» **System:** PC (tested), PS4, PS5, Switch » **Buy it for:** £24.99 (digital), £34.99 (physical) » **Buy it from:** Online, retail

Inti Creates has a clever knack of blending old-school aesthetics with modern game design, and its latest jaunt is an entertaining adventure that falls just short of greatness. A spin-off of the *Gal Gun* series, *Gal Guardians* was notable for its *Castlevania* leanings, the odd bit of questionable imagery and the fact you could play as two distinct characters, swapping between them at will if a second player wasn't available to join in. *Servants Of The Dark* continues this tradition but greatly refines many aspects of the original game, as well as introducing two new protagonists: the demon sisters Karika and Masha.

When the Demon Lord Maxim is betrayed by his head maid, servants Karika and Masha set off in hot pursuit, dispensing justice throughout the underworld as they search for Maxim's missing bones, which have been scattered far and wide. In addition to acting as a story MacGuffin, the bones serve another purpose as their retrieval allows Maxim and the sisters to power-up, gaining numerous useful abilities like double jumps, dashes and healing spells.

Unlike its predecessor, *Servants Of The Dark* is a proper Metroidvania and it features a huge sprawling map that's genuinely interesting to explore. However, the first few hours of the game are quite the slog due to a lot of annoying back-tracking that really slows down the game's pace. Inventory management is a chore too, due to the sheer amount of sub-weapons you can pick up. While these can be combined to create new weapons, it's not always clear how mechanics work. Despite these frustrations, *Servants Of The Dark* is an entertaining adventure, particularly when playing with a friend. Just be mindful that it has a few rough edges to it.

>> **Score 78%**

» [PC] The pixel art really shines in the game's many boss encounters.

» [PC] If you're wondering, *Servants Of The Dark* works a treat on the Steam Deck.

Assault Suit Leynos 2: Saturn Tribute

» **System:** Switch (tested), PS4, PS5, Xbox One, Xbox Series S/X, PC » **Buy it for:** £22.49 (digital), £29.99 (physical) » **Buy it from:** Online, retail

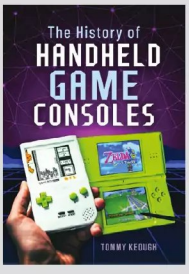
Take control of a big combat robot in this run-and-gun, originally released for the Saturn exclusively in Japan. This is a thinking player's example of the genre – storming into situations with all guns blazing will get you killed quickly, so mastering your mech's wide range of capabilities is crucial. Doing so proves to be satisfying, as does customising the machine between stages. It's a classic example of a game that's rather tricky because it's not especially long, but you can rewind gameplay and create quick saves if you're struggling. The new English translation has some amusing moments that we appreciated too.

NICK THORPE

>> **Score 80%**

The History Of Handheld Game Consoles

» **Buy it for:** £29.99
» **Buy it from:** pen-and-sword.co.uk



The latest tome from Pen & Sword makes for a rather frustrating read. While there's no denying the passion that Tommy Keough has for games and handhelds, his enjoyable prose is scuppered by a bland layout design and some bizarre omissions.

The title itself is rather misleading, as the book is actually about 'The Top Ten Handhelds That Changed The World' (which is a far better title, but perhaps narrower in its reach). Those systems range from the Game Boy, Game Gear and Switch to the PSP and… PS Vita. There's no mention of the Lynx, Wonderswan, or even the Game & Watch in the Game Boy section. As a result, £29.99 feels a little too much for what is essentially a list feature, even if it's a well-written one.

DARRAN JONES

Beyond The Ice Palace II

» **System:** PC (tested) PS4, PS5, Switch, Xbox One, Xbox Series S/X » **Buy it for:** £16.99 » **Buy it from:** Online

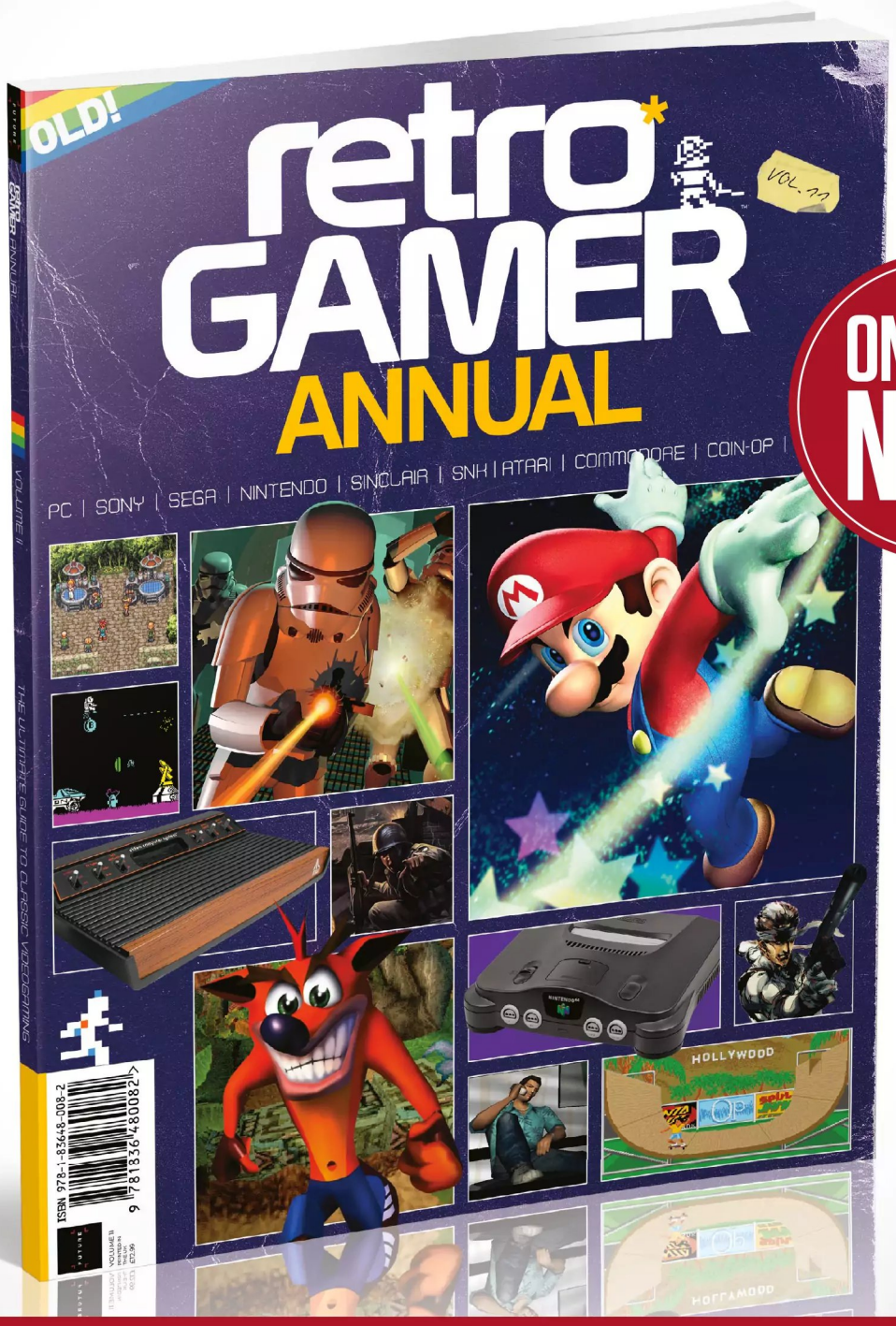
We'd have never guessed that a sequel to *Beyond The Ice Palace* would appear in 2025. Sadly, that surprise is the only thing this adventure really has going for it. It starts off decently with solid pixel art and the introduction of your whip which can be used to activate levels as well as attack enemies, but it all feels a bit wishy-washy in its design. There's some decent boss fights, but cumbersome controls and harsh difficulty spikes hinder progression, while the last few levels are a real chore to get through. There is some enjoyment to be gleaned from Storybird Studios' game, but we wouldn't be upset if it took another 30-odd years for another sequel to arrive.

DARRAN JONES

>> **Score 60%**

CELEBRATE THE BEST OF RETRO GAMING IN 2024

Our latest tome features an incredible amount of fantastic content from Retro Gamer's past 12 months. Iconic characters, huge franchises and classic systems all feature, making it an essential read for retro fans. Don't miss it!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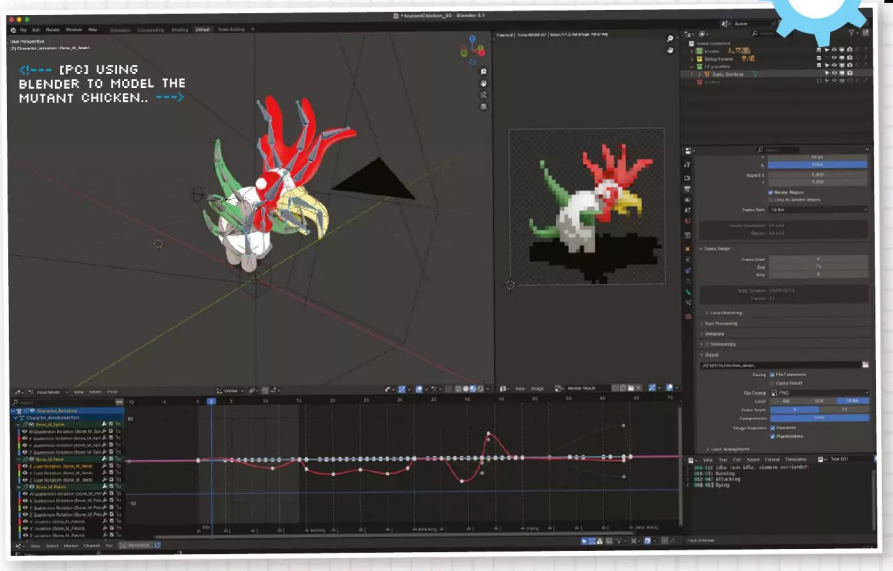
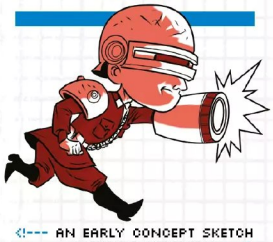


<!--- HERE'S AN EVOLUTION OF SOVIETBORG'S COVER ART. --->

<INTRO> THIS ISSUE WE HAVE SEVERAL CONSOLE GAMES FOR CONSIDERATION, STARTING WITH OUR MAIN FEATURE ON A PROMISING NEW MEGA DRIVE GAME. NATE PETERS AND HIS DAUGHTER ARACELI TALK ABOUT THEIR NEW DOODLE WORLD SEQUEL FOR THE NES, THERE'S A NEW BOOK ON DEVELOPING NES GAMES, A CUTE PLATFORMER HEADING TO THE SNES, AND REVIEWS FOR THE JAGUAR AND GAME BOY COLOR. THERE'S 8-BIT NEWS FOR COMPUTER USERS TOO, SO DIVE IN! </INTRO>



<!--- AN EARLY CONCEPT SKETCH OF THE SOVIETBORG. --->

<!--- [MEGA DRIVE] ZOMBIES POUR OUT OF THE PORTAL, WHICH CAN BE DESTROYED. --->

<MAIN HEADER>

SPANISH SEGA SOLDIERS

<INTRO> THE SPANISH TEAM RETRO SUMUS IS DEVELOPING ITS SOVIET-THEMED HOMAGE TO THE CHAOS ENGINE – THE TOP-DOWN SHOOTER SOVIETBORGS, INITIALLY FOR SEGA'S MEGA DRIVE </INTRO>

<BODY> **Carlos Oliveros, who is in charge of writing and communication at Retro Sumus, discusses the team's inspiration for its new Mega Drive game.** "Definitely *The Chaos Engine* and a little *Cannon Fodder*. Aesthetically and musically, the *C&C Red Alert* games are an important influence. Games like *Speedball 2* have been an inspiration for the rendering/perspective of the main characters and the way they move."

Certain elements of *Sovietborgs* are reminiscent of *Gauntlet*, with enemies spawning from generators that must be destroyed. The alternative future plot has the Soviet Union dominating after detonating the world's nuclear missiles. "The Soviet People have developed a new unit of the illustrious Red Army, the Sovietborgs. Part man, part machine, all proletarian, they travel the world, immune to radiation, to pacify the West and liberate all these new mutant races from their pitiful existence (and capitalism, of course!)," explains Carlos. The team includes programmer Daniel Lancha (aka Chui), designer Abel del Dedo, and composer Juanjo Martín.

"We're using SGDK, a slightly customised version of it, and our own framework under Linux which allows us to compile for PC using the same API as SGDK. It saves a lot of time as iterating for the PC is quicker and we can also trace problems easily," explains Carlos. "Since our graphics are pre-rendered, for design we use Blender, where everything is modelled and animated and adapted as closely as we can to what we'd like it to look like in the final game, we then convert that to Mega Drive sprites using Gimp and some custom-made tools to fit everything into the right colour palettes."

Sovietborgs is also due to be released on the Dreamcast and Neo-Geo, thanks to Chui's expertise. "Some parts we'd rather remake instead of adapting them so we can take advantage of the specific

MEGA MAKERS

BIO-EVIL
PSCD Games

<Along with stylish shmup *Cyber Mission*, the team is demaking the classic *Resident Evil* in isometric form for Sega's console. />

THE WEAVE
Javi Pietro

<An ambitious follow-up to the classic Lucasfilm point-and-click *Loom*, the tech demo includes spellcasting using the joypad buttons. />

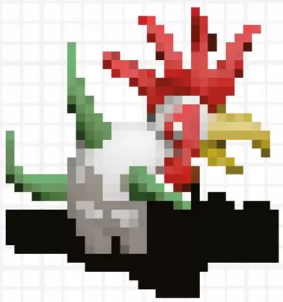
NEW GAMES NEEDED

Our new email address is waiting for all your homebrew news, previews and more: **retrogamer@futurenet.com**

<!--- THE RETRO SUMUS TEAM (FROM LEFT): DANIEL 'CHUI' LANCHA, ABEL DEL DEDO, JUANJO MARTIN, AND CARLOS OLIVEROS. --->

SOVIETBORGS

<!--- (MEGA DRIVE) MUTANT CHICKENS HATCH FROM THE GIANT EGGS DROPPING INTO THE SCREEN. --->



hardware," says Carlos. "For instance, renders won't have to get their colours reduced for the Dreamcast. The music will be full CD quality. It will all take time and lots of testing of course, but we're confident."

Work has taken two years since the initial sketches, with more effort leading up to the forthcoming Kickstarter campaign. Interestingly, *Sovietborgs* will initially be a physical cartridge only. "We'd rather offer buyers a better physical product they enjoy having in their hands than worrying about making ourselves heard in a market so huge and diverse as Steam," explains Carlos. "When all physical copies are shipped and things are calm again, maybe we can consider offering a digital download of the game as we did with our previous effort, *Xenocider*. At some point, we'd like to take our games, current and future, to modern platforms. But something we'd really be interested in is taking them to even more retro platforms, particularly all Sega retro platforms!" Prospective cyborg comrades should try the playable three-level demo that's available at the website retrosumus.com </BODY>

<INTRO> MORE MEGA DRIVE PROJECTS THAT ARE CURRENTLY IN DEVELOPMENT </INTRO>

WINDJAMMERS

Format_c, Pyron, Lunoka, Luke444

<The anticipation is high for this Mega Drive conversion of the classic Neo Geo flying disc game, with new courts and characters being added. />

CASTLEVANIA

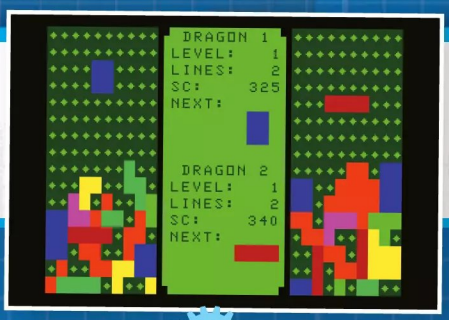
Pigsy

<The coder Pigsy is attempting to convert *Symphony Of The Night* (pictured) and release a demo of a possible *Castlevania III: Dracula's Curse* port. />

THE THREE STOOGES

Fabrice Fernandes

<Slapstick fun with Larry, Curly and Moe is imminent in this Amiga port, including pie throwing and cracker eating. />



NEWS BYTES

<INTRO> ALL THE LATEST NEWS, HANDILY ARRANGED BY FORMAT </INTRO>

<**Amstrad CPC:** CP Soft has released *Harrier Attack Reloaded*, an updated version for Plus machines and the GX4000. Name your price and buy it from bit.ly/harrier-attack-reloaded />

<**Apple II:** Ricky DeRocher's *Castle Quest* is a classic text adventure where you save the princess. You can adventuring at bit.ly/castlequest-apple />

<**C64:** Richard Bayliss has been running the SEUCK Competition 2025, for games created with Sensible Software's classic game maker. There's more info at bit.ly/seuck2025 />

<**Dragon 32/64:** Enjoy Salvakantero's *Dragontet* (pictured) on your Dragon or CoCo computer, with the C source available under GPL v3 licence at bit.ly/dragontet />

<**Game Boy Advance:** The superb cyberpunk point-and-click adventure *NEONnoir* has been converted by Steamknight, using the Butano engine. Play it at bit.ly/neonnoir-gba />

<**Mega Drive:** *BlastEm* is a fast and accurate Mega Drive/Genesis emulator with a web-based version for embedding games. Try it out at retrodev.com/blastem />

<**N-Gage:** Michael Fitzmayer is working on a PICO-8 emulator for the Nokia handheld, with a port of *Celeste* already running thanks to his N-Gage SDK. You'll find it by visiting github.com/ngagesdk />

<**PICO-8:** Mike Richmond has ported his match 3 game *Vegetables*, with four gameplay modes. Get matching at bit.ly/vegetables-pico8 *V-Impact* is a superb bullet hell shooter from Buster Ermy. Get blasting by visiting bit.ly/vimpact-pico8 />

<**SNES:** PVSnesLib, the free library for developing in C or assembly, has been updated by alekmaul. Get it at bit.ly/pvsneslib />

<**VIC-20:** Classic vertically scrolling race game *Formula V20 1981* has been released by Huffleduff, requiring a 16K expansion. Play it at bit.ly/formulav20-vic20 />

<**ZX Spectrum:** Bytemaniacos is running its annual BASIC coding competition. There's more info at bit.ly/bytemaniacos-2025 />

CHAMPION CODER

NATE AND ARACELI PETERS

<INTRO> INSPIRED BY ARACELI'S DOODLES, THE FAMILY'S SEQUEL TO THEIR HIT PLATFORMER DOODLE WORLD IS IMMINENT </INTRO>

<INFO FROM: SAN ANTONIO, TEXAS WEBSITE: DOODLEWORLDGAME.COM FORMAT: NES PREVIOUS GAME: DOODLE WORLD, DOODLE WORLD REDRAWN WORKING ON: DOODLE WORLD 2 />

ARACELI, WERE YOU SURPRISED DOODLE WORLD BECAME A HIT?

AP: I really did not expect it to be a big hit, it was just something we did for fun. I think it is really cool to see it on other consoles! />

WHAT IS YOUR DEVELOPMENT ENVIRONMENT LIKE?

NP: NESmaker is a great tool for creating games and asset management, while Notepad++ is awesome for editing code and scripts. I use MasterPlan for project management. I use Aseprite, my favourite pixel-art editor, which works perfectly with a Surface and Surface Pen. It takes a lot of testing to get the look just right both on modern screens and CRT. All the amazing music is created by the very talented Takumi Grainger in Famitracker. />

WHAT ARE THE BIGGEST CHANGES?

NP: *Doodle World 2* has gone through A LOT of testing to see what works and what doesn't. We wanted to try new mediums, like chalkboards, whiteboards and construction paper. Unfortunately, they did not translate well to screen, and we settled for notebook, handwriting, legal pad and graph paper. We also added a new Air Dash that allows Doodle to quickly dash forward while in the air. />

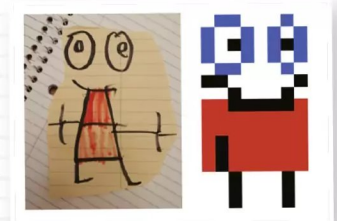
<!--- NATE THE DEVELOPER AND ARACELI THE DESIGNER PROUDLY SHOW THE ORIGINAL DOODLE WORLD. (PHOTO USED WITH ARACELI'S CONSENT). --->

HAVE YOU ENJOYED CREATING THE DIFFERNT MERCHANDISE FOR DOODLE WORLD?

NP: Self-publishing was a lot of fun. Initially, I created shirts, stickers and pins but I have since learned to scale back. I enjoyed being able to make the instruction manual as a colouring book. We even included crayons in the box!

I have officially launched a studio called Acutis Games but right now my sole focus is on *Doodle World 2*. Growing up with the NES, I always wanted to create a NES game. Seeing it in the Switch eShop for the first time was awesome; it was a dream come true to have my game 'officially' released on a Nintendo console. The team at Blaze (Evercade) are awesome to work with, they love indie devs. />

<!--- THE ORIGINAL DOODLE BY ARACELI WAS TURNED INTO PIXELS. --->



<!--- [NES] LEVEL 2 IS SET AT HANDWRITING HARBOR. --->

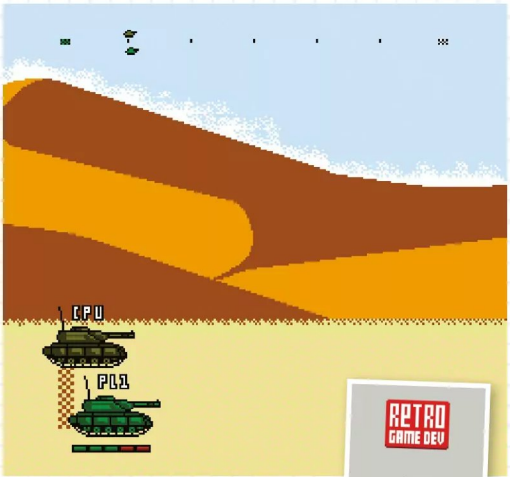
DATA BURST

RETROGAMEDEV NES EDITION

<INFO FORMAT: KINDLE / PAPERBACK CREDITS: DEREK MORRIS PRICE: KINDLE £9.99, PAPERBACK £19.99 WEB: RETROGAMEDEV.COM />

<BODY> **This is the third book in Derek's series, with the first two covering the C64.** His experience with companies including Codemasters and WayForward gives him the knowledge to teach good programming practices. Here, he uses an online Codespace created through Github and VisualCode. The book provides a basic grounding in using the NES hardware and developing in machine code, before showing the reader how to develop a simple tank racing game. The provided code includes a large library of routines for doing basic tasks, such as placing a sprite or creating the HUD (head-up display) for showing scores. This library can then be used in your own projects as a strong base. The integration of tools such as NEXXT (for graphics) and FamiStudio (music and SFX) is good.

This book is not aimed at a complete beginner, as it only gives an overview of machine language. Someone with experience coding for other formats who wanted to try NES development would get the most out of this, and there are other reference works online to help with the NES hardware. The recent *Classic Game Programming On The Nes* by Tony Cruise was deeper and more detailed, but this is a good alternative if you want to try NES development. Ultimately, this is a well-written guide to NES development that would suit someone who understands a little machine code. </BODY>

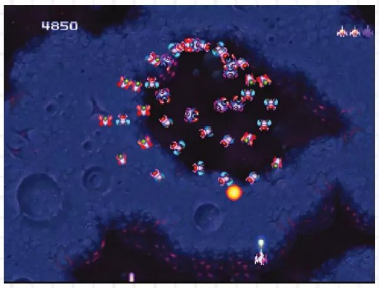


<!--- [NES] THE SIMPLE TANK RACE GAME IN ACTION AS YOU TAKE ON THE COMPUTER. --->

<!--- RETROGAMEDEV NES EDITION IS AVAILABLE TO BUY NOW. --->

NEW GAMES NEEDED

Our new email address is waiting for all your homebrew news, previews and more: **retrogamer@futurenet.com**



<!--- [JAGUAR] ARCADE MODE HAS SOME GREAT BACKGROUNDS SCROLLING UNDERNEATH THE ACTION. --->

<!--- [JAGUAR] THE TIMED CARAVAN MODE GIVES YOU THREE MINUTES TO SCORE AS MUCH AS POSSIBLE. --->

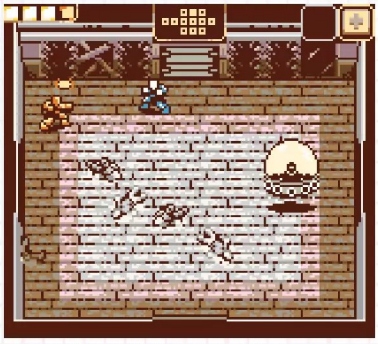
XENOWINGS

<INFO FORMAT: JAGUAR CREDITS: DUNE (TERENCE, MIC, DMA-SC) PRICE: $70 PHYSICAL EDITION FROM ATARIAGE WEB: BIT.LY/XENOWINGS-JAGUAR />

<BODY> **This new shmup draws heavily on arcade classics such as *Galaxian*.** The main menu lets you choose the timed Caravan mode or the progressive Arcade mode where the background changes as you complete levels. The enemy formations swirl onto the screen and then line up at the top before swooping to attack and it includes the classic trick of letting an enemy use their tractor beam to grab your ship, then shooting that enemy to gain extra firepower. The graphics are good and there's a decent soundtrack. However, the game lacks the refinement of later *Galaga* titles and is missing the bonus rounds, which would have given *Xenowings* some variety. However, this is still an entertaining shooter. </BODY>

SCORE: 71%

<!--- [GAME BOY COLOR] MAKING YOUR ESCAPE ALONG THE HIGHWAY. --->



<!--- [GAME BOY COLOR] SHOOT WITH A AND DODGE WITH B. --->

ANNIHILATOR

<INFO FORMAT: GAME BOY COLOR CREDITS: SALT & PIXEL PRICE: $10 (DIGITAL DOWNLOAD) / PHYSICAL TBC WEB: BIT.LY/ANNIHILATOR-GBC />

<BODY> **In 40XX, humans are turned into vicious Annihilators to fight for the CRUSH corporation.** The converted Shinryu has woken up and decided to fight back for what the mega corp did to his family. Most levels are set in a *Smash TV*-style map of small rooms/arenas, where you shoot enemies to progress and pick-up hearts for energy. Later twists include a horizontally scrolling shoot-'em-up and new types of enemies to master. Even on the lowest of three difficulty settings, *Annihilator* is a tough game, but it does generate a great sci-fi atmosphere. </BODY>

SCORE: 80%

PROCESSING

<INTRO> TILL AND HAT (BIT.LY/TILLHAT-DEMO) IS A PROMISING SNES PLATFORM GAME FROM DOMINIK BALOG (AKA WOODFROG) </INTRO>

<BODY> **Playing games made a younger Dominik want to write his own.** "I previously made a game for the Mega Drive in C, but I had to take a step further and make a game in assembly." The adventurer Till uses her magic hat to explore different planets, with the map using Mode 7 tricks. "The plan is a single playthrough would go through roughly six stages, but they would be chosen from a much bigger pool of levels via branching paths on the space map," says Dominik.

"Pretty much all tools used are free open-source: text editor, image editor, music sequencer, etc. And then a custom toolchain to convert those to in-game format." The game should be released later in 2025. "I don't want the game to be too short, but it wouldn't be a good idea to keep people waiting either." Dominik is planning physical cartridges as wel. "Getting to make cartridges for homebrew like this is part of the fun, so that's definitely something that'll be done if possible." </BODY>

<!--- [SNES] HITTING THIS CREATURE RELEASES BUBBLES, ALLOWING TILL TO REACH A HIGHER PLATFORM. --->

HOT TOPIC

RETROBATES MULL OVER THE SCENE'S MOST INTRIGUING ISSUES

GAMECUBE REVITALISED

The team discuss GameCube games heading to the Switch 2

DARRAN JONES

NICK THORPE

TIM EMPEY

One of the biggest highlights of Nintendo's Switch 2 Direct was arguably the announcement that GameCube games would be heading to the console's online service. Darran, Nick and Tim get chatting about the news.

DARRAN

So how do we feel about GameCube games being added to the Switch Online service?

NICK

I'm happy about it, but then I'd be happy with anything that allows more people to play *F-Zero GX*.

TIM

I can't wait. The GameCube was my first Nintendo console when I was on *Cube*, and there were so many amazing games already out and more coming during that time.

DARRAN

Are we happy with *F-Zero GX*, *The Wind Waker* and *Soulcalibur II* kicking things off?

TIM

Yep, will *The Wind Waker* gain the same amount of controversy over its graphics? And Link in *Soulcalibur II*, bombs away! (I bought *Soulcalibur II* on PS2 so I could play as Heihachi, because I'm an eejit.)

NICK

With *Super Mario Sunshine* and *Metroid Prime* already available on the Switch, I think these are probably the three biggest games Nintendo could start with, so it seems good.

DARRAN

After owning a Steam Deck and knowing what's capable from an emulation viewpoint on that, it does feel like Nintendo could have made these games available on the original Switch…

NICK

Super Mario Sunshine was emulated on *Super Mario 3D All-Stars*, so GameCube emulation certainly wasn't impossible on the console, but I don't know how many game-specific tweaks were involved in getting it running. Nintendo did have enough problems getting N64 games running nicely on the original system, so I feel like doing broader GameCube emulation might have been a stretch.

DARRAN

So let's talk about games. What does everyone want to see?

TIM

I really want to play *Pikmin* again. I reviewed it back in the day but I don't think I finished it. So that would be great to play again. I can't work out if I'd play *Wind Waker* again, probably not because even after all these years, I still remember a hell of a lot of it. Would I do a *Metroid Prime* trilogy replay? I might, and try to get it done before *Metroid Prime 4* comes out.

NICK

It would be brilliant to see *Skies Of Arcadia Legends* come to the service. There's no other way to get it on modern platforms, and it's expensive as heck.

» [GameCube] We're unlikely to see *Double Dash!!* near launch with *Mario Kart World* being available, but you never know.

DARRAN

I really hope From Software's *Lost Kingdoms* games make it to the service. They're both highly underrated. Did anyone get to play them?

NICK

No, and they seem like my sort of thing too.

TIM

The *Lost Kingdoms* games passed me by unfortunately, but I'd give them a try.

DARRAN

They're really decent and *Lost Kingdoms* is the first professional review I did for *games™*. So Tim, is this a system you could be interested in picking up?

» [GameCube] From Software had a huge presence in the Nintendo Direct, so we're fully expecting *Lost Kingdoms* at some point.

» [GameCube] Licensing will most likely prevent games like *Rogue Leader* and *DreamMix TV World Fighters* appearing on the service.

TIM

Ahh, no, unfortunately. With the cost of living crisis, everything is going up in price (you should have seen my smart meter on 1 April), and the £430 price point with *Mario Kart* (which could increase too due to various global issues) just puts it out of my bracket. And then £75 for a game?! That really stings.

NICK

I totally get that. The cost of the console was more or less what I expected, but the cost of the games? Ouch.

DARRAN

Yeah, it does feel very high, even though there's no denying the quality of many first-party games. I'll be interested to see how many third-party GameCube games do end up on the service as most of them felt the weakest to play due to that button layout.

NICK

That's the beauty of playing them on the Switch 2 though, surely? You'll have a more standard controller design to enjoy them with.

DARRAN

Doh. I was thinking about the £59.99 controller you can use for an official experience. So what third-party games would you love to see?

TIM

Freedom Fighters, because it was the first game I reviewed in *Cube*. *Viewtiful Joe* would be awesome to play again. And, oh sod it, *Doshin The Giant*, to see if it still doesn't hold up.

» [GameCube] Nick's really hoping for *Chibi-Robo!* to make an appearance in the new GameCube roster.

> "I'd be happy with anything that allows more people to play F-Zero GX"
> NICK THORPE

NICK

Capcom's *Viewtiful Joe* games would be great fun to play through again, and I really feel like *Billy Hatcher And The Giant Egg* could be a fun one to revisit too.

DARRAN

All solid choices. I love the idea of revisiting *PN03* again and *Cubivore* was a weird delight that's now very expensive to experience in physical form. Here's hoping that the *Rogue Leader* games return as well, but licensing might be an issue there. I'll just have to cross my fingers and hope. ✱

» [GameCube] *F-Zero GX*, along with *The Wind Waker* and *Soulcalibur II* will be the first GameCube games to appear.

» [GameCube] You'll be able to play *The Wind Waker* on launch, which should make *Zelda* fans happy.

» [GameCube] *Fire Emblem: Path Of Radiance* is supremely expensive now, meaning many won't have experienced it.

READERS REACT

The GameCube games you'd like on Switch 2

Pep

Chibi-Robo! in the hopes that it brings the original version's value down. It's one I regret selling about seven years ago, as the value has doubled since then.

am87

Fire Emblem: Path Of Radiance – it's a fantastic game, locked out to almost everyone given how much it sells for online. It's the game that made me fall in love with the series, and I want more people to have the chance to experience it.

Brian H

Star Fox Adventures, simply because I never got to play it the first time around and also *Viewtiful Joe* as that game deserves a much bigger following.

Psi/Ben

I would love *Wario World*. Not a title many think of when talking about the GameCube, but I love Wario and I love Treasure and it has that curio factor.

RetroBob

I'd love to see *Rogue Squadron 2*. My favourite launch game has never been on another console... good luck with licensing.

Cherry Lambrini

Hopefully, *The Twilight Princess* will appear sooner rather than later. I really want to play it again, but I only have the Wii version, and I'm getting too old to be waggling my business about.

Makopowered, PHD

Billy Hatcher And The Giant Egg, *Killer 7* and *Odama* – all games that are quirky and unique, and all games that flew under the radar.

Jeffrey Walker

I'm hoping to see some blind spots such as *Billy Hatcher*, *Cubivore*, *Chibi-Robo!* and *Eternal Darkness: Sanity's Requiem*.

Jonathan Szuhai

We already know games can be delisted from NSO for one reason or another. So I want them to add the option to buy the games individually so I don't have to worry about them disappearing from my console one day. [Good point – Ed]

Smitty

The *WWE Day Of Reckoning* games are two of the most unappreciated wrestling games that exist. I would love to see them accessible to present-day fans.

COLLECTOR'S CORNER

READERS TAKE US THROUGH **THE RETRO KEYHOLE**

HIGH SPEED
"I didn't realise that *NES High Speed* was made after a real arcade pinball machine. I eventually found one for sale around me, I got lucky. I thought it was awesome, and my wife agreed. She loves it."
AMOUNT PAID: $3,000-$3,500
TEENAGE MUTANT NINJA TURTLES ARCADE1UP
"My son's favourite thing is the *Ninja Turtles* cabinet. These Arcade1Up cabinets are totally cool. I would say this is the best, obviously I'm biased."
AMOUNT PAID: $370
ZELDA COLLECTION
"I don't collect complete-in-box games, but pretty much every *Zelda* game I have is complete, and for me, it's just honouring a great series that I've dedicated a lot of my life to playing."
AMOUNT PAID: UNKNOWN

BIO

NAME:
Greg

LOCATION:
Wappingers Falls, New York

ESTIMATED VALUE OF COLLECTION:
$150,000+

FAVOURITE SYSTEM:
"Any generation Nintendo system that's not Wii or Wii U"

FAVOURITE GAME:
The Legend Of Zelda: A Link To The Past, Super Mario Bros 3

BOUNTIFUL BASEMENT

This month's collector has a hideaway filled to the brim with gaming goodness

We can't help but smile as this month's collector gives us his tour, showing us the door hidden behind a bookcase in his basement that leads to a gaming room. This secret lair is filled with delights both retro and modern, and it's exceptionally well organised. "The difference between collecting and hoarding for me is organisation," says Greg. "I don't want to have games in tubs overflowing in my basement or in my garage, I want to be able to showcase what I have."

Like so many collectors, Greg's love for gaming started in childhood. "I think when I was between five and seven, maybe even a little bit earlier, my parents got me a NES that was bundled with *Mario* and *Duck Hunt*." His parents shared in his new hobby, too. "We got *Excite Bike* because my dad was huge into dirt bikes, we always had a dirt bike in the garage. Me and my mom beat *Zelda* together. We had the map that came with *Zelda*, and we had pen all over it marking where stuff is." Although he was able to play Sega games with other family members, Greg stuck with Nintendo through the years.

However, Greg's collection started during a visit to Long Island in 2014. "We went out for bagels, and I was bitching about how I didn't find anything for Black Friday. My wife's friend was like, 'Oh, well, I have a Super Nintendo at my house, and I have some games if you want to buy that. Nobody plays it anymore.'" With Greg's wife being a big fan of the *Donkey Kong Country* games, those soon joined the collection, followed by a NES inspired by Greg's own nostalgia. The collection took a major step up a few years ago, when the family moved to a new home with its large basement.

Greg's collection includes both original hardware and modern FPGA-based systems from Analogue, and there are complete libraries for a number of consoles including the NES, SNES, N64, Virtual Boy and TurboGrafx-16. "My game room is not just about me, it's about everybody who comes and checks it out and wants to play a game," says Greg, explaining the appeal of full sets. "I wanted to make sure, like, 'You played it on NES? I have it, you don't even have to tell me what it is.'"

Greg follows the NES homebrew scene closely these days, and that's where he still has some target games, "I think the games are pushing the NES to its limit," he says. "It's still approachable for one or two people to make a game, and I think it's cool that people still make games for the NES. Right now, I'm looking for a couple of homebrew titles that I haven't been able to source – one of them is *Rekt*, by FG Software." But mostly, he's enjoying his games in the same familial fashion he did when he was younger. "Now my son is five, almost six, so he's getting into it – he plays *Luigi's Mansion* and *Donkey Kong Country*. So it's a family thing."

Got an impressive collection of your own? Contact us at:
RetroGamerUK @RetroGamer_Mag retrogamer@futurenet.com retrogamermag.bsky.social

TURBOGRAFX-16 COLLECTION
"The games weren't super expensive, they're easy to store and they're fun to play. The only one that I don't own is *Magical Chase*, and that's because it's like five grand plus."
AMOUNT PAID: UNKNOWN

JEWEL IN THE CROWN

NINTENDO M99 RETAIL CABINET

■ "I drove to Canada to get it. I drove home in a monsoon. I thought it was going to be ruined, I had every tarp available wrapped around it. My brother helped me unpack it and it was wet in a couple of places, but it ended up being fine."

PAID: $3,000-$4,000

BARGAIN HUNT

Your guide to the rising world of retro prices

THE COVER STAR

ZX SPECTRUM

A boxed, working Speccy will cost you **£50+** these days, but that price can vary significantly based on the condition and what's bundled with the machine. However, finding tested models is becoming harder as people struggle to connect them to modern TV sets, so keep that in mind.

GAUNTLET IV

Complete boxed PAL copies of M2's Mega Drive classic start at **£35.** This game commonly suffers from problems due to failing circuit boards, so be prepared to seek repairs if you buy it, as Darran found out a few years back. The Japanese version is a lot more expensive and can reach as much as **£130** if it's in great condition.

SUBWAR 2050

This won't send you under, but some versions are pricier than others. The Amiga floppy version sells for **£5-£20,** the PC floppy goes for **£10-£30,** while the Amiga CD32 version reaches **£20-£60.**

SUPER MARIO KART

Complete boxed copies of this multiplayer classic are surprisingly reasonable – **£20+** for a PAL copy and **£15+** for a Japanese version. US copies are about **£35+,** if you're quite lucky.

FX FIGHTER

If you think you're hard enough, Argonaut's brawler won't batter your wallet – the game sells for **£10-£20** when it comes up, with brand-new copies only going as high as **£30.**

GRIM FANDANGO

This one's a true bargain, with original CD-ROM copies of the LucasArts classic available for as little as **£2.** Having said that, we've seen big box copies in good condition going for as much as **£60-£150.** Alternatively, the remaster is available on current systems for around **£10.99.**

NINJA GAIDEN BLACK

Tomonobu Itagaki's hack-and-slash classic tends to land in the **£15-£30** range, and it works on modern Xbox hardware too, which probably helps jack up the price. If you do have access to modern systems, it's **£9.19** digitally.

HOW MUCH?!

BOMBERMAN HERO

This isn't the most expensive Nintendo 64 game out there, with loose copies typically coming in around the **£10-£20** region and complete boxed copies going for **£45-£50.** So we're not sure why a nice but unremarkable complete copy recently sold for **£139.97** – a price that would cause your partner to explode.

Prices correct at time of print

DIGITAL DUNGEONS

Darran on his longtime love affair with Dungeons & Dragons

'll never forget the first time I got to play *Dungeons & Dragons*. I loved *Fighting Fantasy* books and enjoyed *Hero Quest* and the odd game of *Blood Bowl*, but I was always considered too young for *D&D*. I got into the game by accident because I'd gone to a neighbour's house to borrow some milk and their lodger said he and his mates were playing *D&D* and would I like to join them?

I rushed home and convinced my reluctant mum to let me go, pointing out that they were only two doors away, so what trouble could I possibly get into? Mike the lodger let me into the front room, a room that was not only thick with smoke, but stunk of what I would later discover was cannabis. Cans of beer and *D&D* books were littered around the floor, while a porn film starring John Holmes was playing in the background – as a 15-year-old the scene left quite the impression.

I was hastily given the character of the person who hadn't shown up, who turned out to be a ranger whose name I've since forgotten, and I was given a brief introduction to the other players, all of whom were in their early 20s. I then sat down to play where we were presented with our first problem – a giant oyster housed a magical pearl that had to be retrieved and no-one could work out how to do it.

Spells, brute force and various other ideas had all failed, so I suggested a trick used to open oysters in the real world to see if that would work. After being informed that he'd have to roll a D20 to decide if my character would know that, the DM decided my ranger did and we retrieved the gem and went on to complete the adventure. It was probably the first time where adults not only listened to my advice but acted on it and it felt great.

After telling mum about the great time I had (leaving out the drugs and porn, of course) it was agreed that I could continue playing, which led to weekly gaming sessions that lasted for nearly 20 years before life got in the way and our group disbanded.

D&D is a widely acceptable pursuit nowadays and is a huge part of pop culture, but that certainly wasn't the case in the Eighties and Nineties and I'd often be ridiculed for playing. I eventually became a Dungeon Master and would craft my own adventures. I don't have much of an imagination, but would crib ideas from books and films I'd seen and I'd argue that *D&D* played a big part in me wanting to become a writer in some capacity.

When I wasn't playing the tabletop version of *D&D* I was playing any digital versions I could get my hands on. Sadly, while the licence dipped into numerous genres, the quality of games could be all over the place and I soon found that getting to play a new *D&D* release could be a bittersweet experience.

> "A new D&D release could be a bittersweet experience"
> DARRAN JONES

The Eye Of The Beholder series stands up as a good example of great early *D&D* games, as do the *Baldur's Gate* titles. I didn't really gel with the numerous Gold Box games that were released, like *Curse Of The Azure Bonds* and *Pools Of Darkness*, but I appreciated them for what they were. *Warriors Of The Eternal Sun* was much more to my liking on Sega's Mega Drive and I didn't mind the *Ravenloft* PC games. Capcom's two side-scrolling fighters remain fantastic examples of the genre with their huge bosses and light RPG mechanics.

You have to take the rough with the smooth though and outside of the excellent *Baldur's Gate III*, I can't think of a truly great *D&D* game from the last 15 years that has impressed me. *Lords Of Waterdeep* is a great strategy game, but as it's an adaptation of the board game it doesn't count.

Considering how much interest there is in *D&D* now, and the huge success of *BGIII*, it's interesting that so few new games appear to be on the horizon. I'd love to get stuck into *Dungeons & Dragons Online* but I'm wary of putting all my time into another online *D&D* game that might get pulled. Here's hoping we get something new soon, because the many worlds of *D&D* are fascinating to explore, whether you're doing it with pen and paper, or in a videogame. ✱

ESSENTIAL ADVENTURES

YOU CAN'T GO WRONG WITH THESE D&D OFFERINGS

BALDUR'S GATE III
Larian Studio's love letter to *D&D* is an astonishing RPG that's unlikely to be bettered for some time.

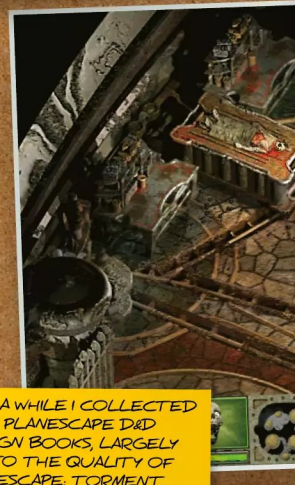
HONOUR AMONG THIEVES
OK, so this isn't a game, but it's an entertaining movie that was clearly made with a lot of understanding of what makes *D&D* great fun to play.

THE ICEWIND DALE TRILOGY
While the *Dragonlance Chronicles* series is great, I've a special love for the books that introduced me to Drizzt Do'Urden, RA Salvatore's heroic drow ranger.

CHRONICLES OF MYSTARA
This digital double pack includes both *Tower Of Doom* and *Shadow Over Mystara*. Don't miss it.

RAVENLOFT
This is my favourite campaign setting that's inspired by classic literary monsters like Dracula.

[PLAYSTATION] IRON & BLOOD: WARRIORS OF RAVENLOFT IS A TERRIBLE FIGHTING GAME AND RAVENLOFT IS A WEIRD SETTING FOR IT.



[PC] FOR A WHILE I COLLECTED THE PLANESCAPE D&D CAMPAIGN BOOKS, LARGELY DUE TO THE QUALITY OF PLANESCAPE: TORMENT.

[PC] WHEN I HAVE THE SPARE TIME I'M GOING TO REPLAY BALDUR'S GATE III. IT'S A TRULY FANTASTIC D&D EXPERIENCE.
GOLIATH
BALTHOR
FINGERS
FLAME
HP
THE PARTY FORCES THE DOOR.
CAMP
[AMIGA] DUNGEON MASTER GOT THEIR FIRST, BUT I STILL ADORE THE EYE OF THE BEHOLDER GAMES.
LORIMAR SWINGS AT ASSASSIN AND MISSES.
[PC] THEY'RE CLUNKY BUT I DO LIKE THE TWO RAVENLOFT ADVENTURES THAT WERE RELEASED.
[PC] BACK WHEN I HAD A LOT MORE SPARE TIME I'D PUT LOTS OF ENERGY INTO MY ONLINE NEVERWINTER NIGHTS CHARACTERS.
SKELETON
JOIN IN!
[ARCADE] CAPCOM'S TOWER OF DOOM IS A GREAT SIDE-SCROLLING FIGHTER AND IS AVAILABLE DIGITALLY ON MOST MODERN SYSTEMS. I RECENTLY COMPLETED IT AGAIN ON THE STEAM DECK.

D&D FOREVER

The D&D games that matter the most to readers

Antonio
Planescape: Torment. Truly a work of art in all aspects. The setting, the story, the characters. Actually character doesn't cut it in a lot of cases. Morte is a character, the Lady Of Pain and Many-as-One are something else.

drbabyjesus
Shadow Over Mystara. Losing at a beat-'em-up side-scroller in the arcade is bad enough, but it really hurts when you've built up your character. It expanded on the idea of levelling up a beat-'em-up character that we saw in *Knights Of The Round.*

DOS Games
AD&D Cloudy Mountain on the Intellivision... because it's the first videogame I remember ever seeing, and it's actually decent fun to play.

Imagibearding
You can't really go wrong with *Baldur's Gate III.*

Harmony
Dungeons & Dragons: Chronicles Of Mystara, easily. Capcom turned a slow-paced adventure series into a fast-paced arcade beat-'em-up whilst retaining that signature *D&D* magic. Truly one of the best, and even better thanks to the home ports.

Ali Raw
I have a soft spot for *D&D: Warriors Of The Eternal Sun.* Almost most of my experience was watching my older brother play it on his Mega Drive.

Simon Burton
AD&D: Cloudy Mountain on the Mattel Intellivision. I like the game mechanics of the gradual revealing of the catacombs as you travel through them and hearing creatures before you encounter them.

Steve Hall
EOTB II: Legend of Darkmoon. I used to play it with my Dad... we got stuck in the crypts in the area your party couldn't rest in. It was some years later when I finally went back and completed it.

MAILBAG

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Every month, one lucky writer-in will receive a copy of one of our classic retro books from our archives. Good luck everyone!

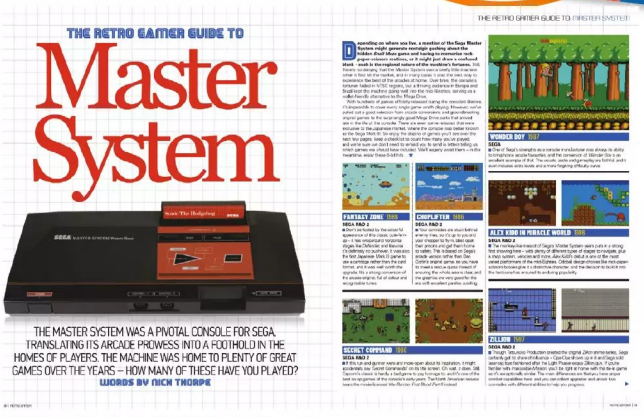
STAR LETTER

THE RETRO SUMMIT

Dear **Retro Gamer**,
In September 2022 I climbed Mount Kilimanjaro and took my trusty Game & Watch with me. I had a very brief (and very cold!) game of *Zelda* at the summit before I had to come down again. I was reminiscing about this recently when I took the same Game & Watch on a trek to Machu Picchu, and it's got me wondering – at 5,895 metres can I claim the highest (non-aeroplane!) altitude game of *Zelda* ever? I'd be interested to hear if anyone's carried one higher! See attached picture for proof!
Ben, Northwich

What a fantastic achievement, Ben! We can't say for sure if you've set a record, but you've certainly impressed us, so have a book for your achievement.

» Here's a snap of Ben's high-altitude game of *Zelda*. What an impressive feat!


THE RETRO GAMER GUIDE TO
Master System
THE MASTER SYSTEM WAS A PIVOTAL CONSOLE FOR SEGA, TRANSLATING ITS ARCADE PROWESS INTO A FOOTHOLD IN THE HOMES OF PLAYERS. THE MACHINE WAS HOME TO PLENTY OF GREAT GAMES OVER THE YEARS – HOW MANY OF THESE HAVE YOU PLAYED?
WORDS BY RICH THORPE

» It's great to hear that readers like Tom are discovering new games with our features.

USEFUL GUIDES

Hi **Retro Gamer**,
I love the format of the console guides you publish. The compact, enthusiastic game descriptions and images definitely made me want to fire up my emulation system and check out a ton of these games, and in a proper Master System session, rather than just a random visit among other systems and games. I didn't own a Master System in the old days, I went from the C64 to the Mega Drive, so it's been fun to discover it in recent years. Definitely, as you put it, a "beefy console!".
Cheers,
Tom Vanheems,
South Hampstead, London

We're glad you're enjoying the guides, Tom. We love it when readers discover new games thanks to our articles and we really hope you discovered some classics.

THE FUTURE IS HERE

Dear **Retro Gamer**,
I just wanted to drop a quick note to say how much I love the magazine. It's one of the few things these days that properly transports me back – not just to the games, but to the feeling of being there, growing up with it all.

I still remember the exact moment I bought my Nintendo 64. I was 13, working weekends for £2.50 an hour, saving up religiously. When I finally had enough, I walked straight into Electronics Boutique and handed over a pocketful of coins to buy the N64 along with *GoldenEye 007*, *Donkey Kong 64* and *Mission: Impossible*. That walk home felt like I was carrying the future in a plastic bag.

GoldenEye alone probably robbed me of hundreds of hours – and I regret none of it. *Mission: Impossible*... well, the box art deserved an award at least! But it didn't matter. Back then, every game felt like a doorway to something bigger.

These days, I'm still deep in the retro world – though now I'm blending it with modern tech like AI and crypto (not as evil as it sounds, honest). There's something timeless about those older games that still shapes how I approach creativity and design today. Keep up the amazing work. Every issue

» [Nintendo 64] Phil loved playing *GoldenEye 007*, but wished it featured rideable snow mobiles.

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» [Saturn] you can visit youtube.com/@Frogbull55 to see how Crash Bandicoot is progressing on the Saturn.

reminds me why I fell in love with games in the first place.
All the best,
Phil 'Retro' Cross

Darran was a big advocate for the Nintendo 64 as well and you're quite right that it felt like the future. We'd imagine the incoming Switch 2 will have a similar impact on the next generation of gamers.

SEGA HOMEBREW

Hi **Retro Gamer**,
I Thought you might want a feature idea/suggestion on *WipEout* being released for Sega's Dreamcast. There are also lots of Saturn fan translations like *Princess Crown* and *Airs Adventure* in the works and a Saturn version of *Crash Bandicoot* on the way, not to mention multiple brand-new Mega Drive games for 2025.

Cheers
Paul Blackwood

Nick had already clocked *WipEout*, but you're quite right that there's a lot of cool homebrew on the way for Sega systems. We'll review anything relevant and when it comes out.

DISCUSSED THIS MONTH

Mix and match

In issue 270 we erroneously mixed up the images of Stuart Fotheringham and Keith Tinman, which no doubt would have confused anyone that knows them. Apologies for the clerical mix up. While we're on a confession roll, Darran stated in the mailbag of 271 that Graeme Mason wrote our *Bluffer's Guide To Flight Sims*, when it was in fact Ian Marks.

» Many thanks again to Stuart Fotheringham (top) and Keith Tinman (right) for talking to us about Odin Games in issue 270.

» [ZX Spectrum] Bob Pape's impressive work on *R-Type* makes it a truly astonishing Spectrum conversion.

Your say

Every month, Retro Gamer asks a question on social media and prints the best replies. This month we wanted to know…

What's the most technically impressive Spectrum game you've played?

Robb from 8/16/32bit
Chase HQ. It was incredible. Smooth, fast, and superbly playable. By far the best home-computer version, too.

zx_spectrum_30
The Lords Of Midnight – the scale is phenomenal and you had a real sense of fighting a war in a virtual land. The balance between complexity and playability was spot on too.

Andy Toone
Starstrike II had 'arcade graphics' that blew my mind. *Academy* (*Tau Ceti II*) was really sophisticated, with unique graphics and a customisable UI. *Knight Lore* just transformed what we expected from the Spectrum. Some of the recent games and demos still push the limits.

Kevin Ward
I remember the Shooting Range part of *19: Boot Camp* being really smooth and un-Spectrum like!

Zac(hary) Thraves
I thought *Dun Darach* was impressive, the immersive world and characters were excellent. I thought *Elite* was technically excellent, but I couldn't quite get into it.

planetmatt
R-Type is an incredible conversion given the limitations of the system. It doesn't compromise on those massive end-of-level bosses.

Chris
Trap Door always impressed me with those huge and colourful sprites.

James Harvey
Stunt Car Racer was pretty mind blowing back in 1989 on that hardware.

Ian Tucker-Bell
The one that made my jaw drop was *Knight Lore*. Watching Sabreman transform into the wolf and back again was, to my mind, the most astonishing thing I'd ever seen on my humble Speccy.

Richard
This may be an unusual choice, but for me it's the *Dizzy* spin-off *Fast Food*. I can still remember the day when I first loaded it up and had the mind blowing experience of hearing my Speccy speak.

Michael Oglesby
Driller by Incentive Software. A full 3D experience on an 8-bit machine. No tricks, no optics, just full 3D.

Jonnie Baker
At the time, *Exolon* was absolutely startling.

retro GAMER

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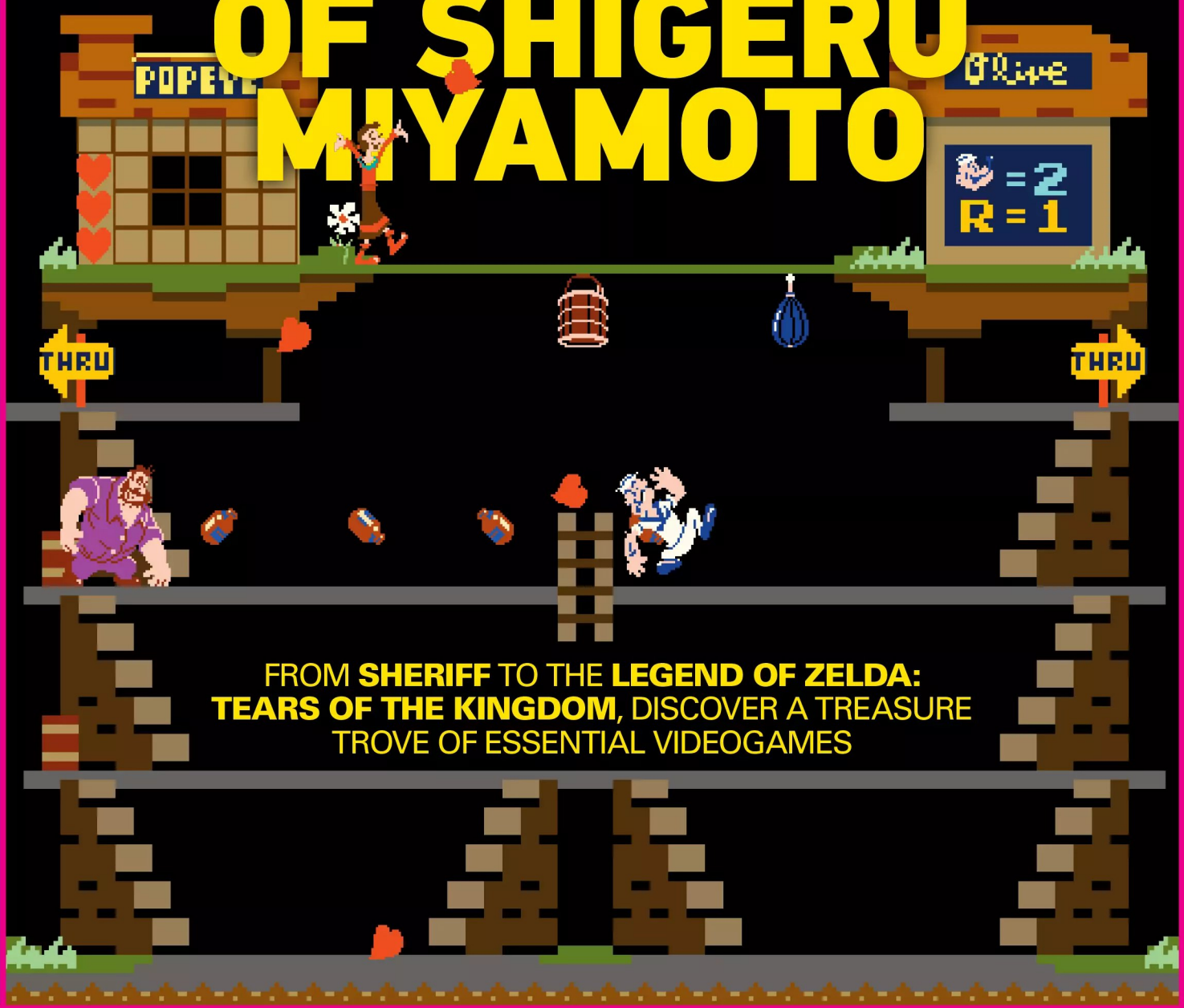

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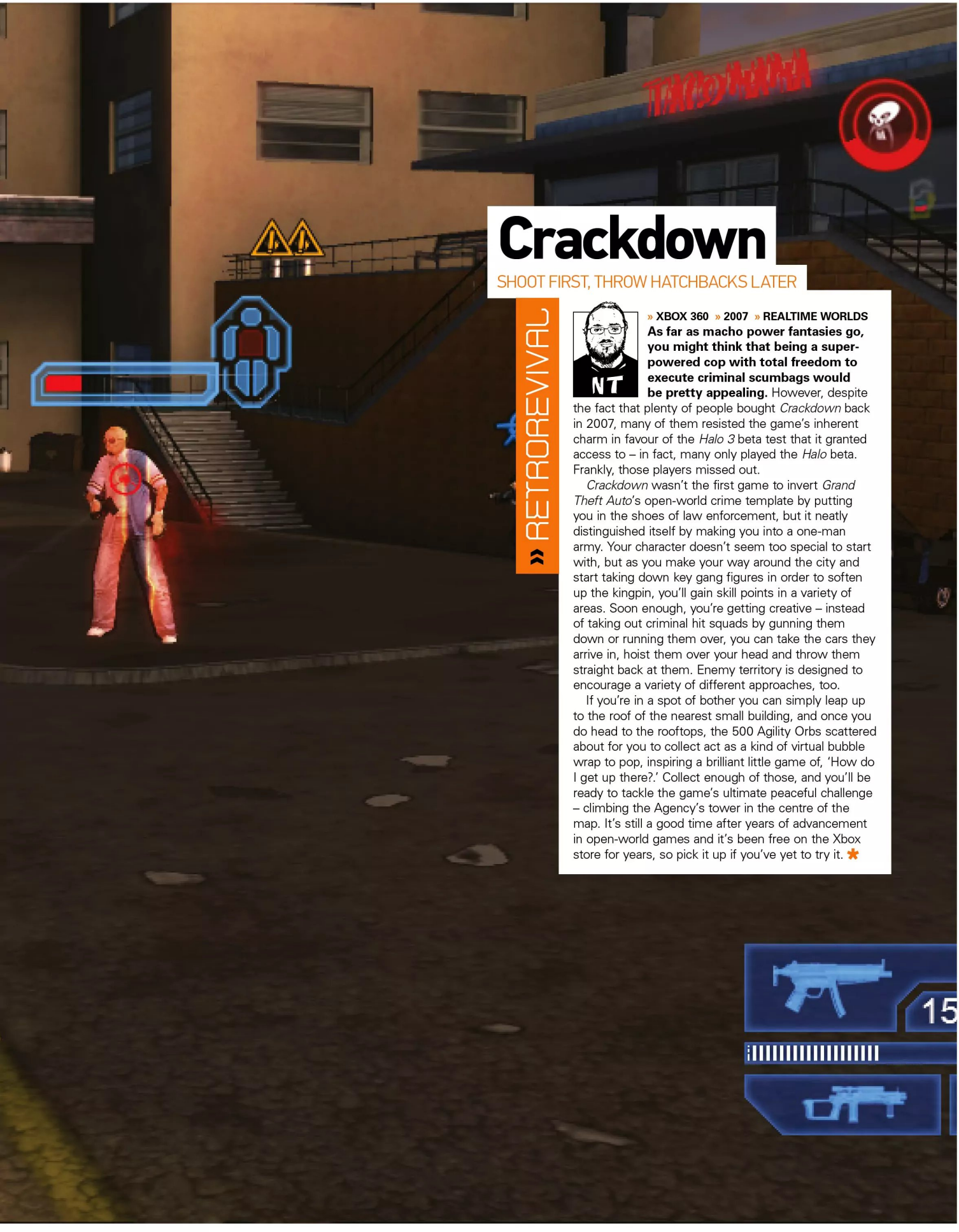

Crackdown

SHOOT FIRST, THROW HATCHBACKS LATER

RETROREVIVAL

» XBOX 360 » 2007 » REALTIME WORLDS

As far as macho power fantasies go, you might think that being a super-powered cop with total freedom to execute criminal scumbags would be pretty appealing. However, despite the fact that plenty of people bought *Crackdown* back in 2007, many of them resisted the game's inherent charm in favour of the *Halo 3* beta test that it granted access to – in fact, many only played the *Halo* beta. Frankly, those players missed out.

Crackdown wasn't the first game to invert *Grand Theft Auto*'s open-world crime template by putting you in the shoes of law enforcement, but it neatly distinguished itself by making you into a one-man army. Your character doesn't seem too special to start with, but as you make your way around the city and start taking down key gang figures in order to soften up the kingpin, you'll gain skill points in a variety of areas. Soon enough, you're getting creative – instead of taking out criminal hit squads by gunning them down or running them over, you can take the cars they arrive in, hoist them over your head and throw them straight back at them. Enemy territory is designed to encourage a variety of different approaches, too.

If you're in a spot of bother you can simply leap up to the roof of the nearest small building, and once you do head to the rooftops, the 500 Agility Orbs scattered about for you to collect act as a kind of virtual bubble wrap to pop, inspiring a brilliant little game of, 'How do I get up there?.' Collect enough of those, and you'll be ready to tackle the game's ultimate peaceful challenge – climbing the Agency's tower in the centre of the map. It's still a good time after years of advancement in open-world games and it's been free on the Xbox store for years, so pick it up if you've yet to try it. ✱

ENDGAME

LORD OF THE SWORD

» Baljinya has a vacancy at the top – followers of the demon lord Ra Goan have killed the royal family, and they're planning to resurrect him. If they succeed, he'll take the crown and the kingdom is stuffed. That's where Landau comes in. If he can succeed in three tasks, he'll ascend to the throne instead. Let's skip to the end and see how he does with that little challenge...

01

» Landau has become the King Of Baljinya, and all he had to do was find a tree, destroy a statue and beat up a goblin. Sure, there were loads of evil minions to kill too, but who's counting?

02

» This bloke is very happy, because he feels you can restore Baljinya's beauty. It was a great place to live before Ra Goan's followers showed up, and that greatness can surely be regained.

03

» Here's another man, who urges that his unnamed country and Baljinya must maintain a friendly relationship with one another. Indeed, it's generally advised to keep your friends close.

04

» Unfortunately, Landau's new duties trouble him greatly. He got this whole king gig by being really good with a sword, and it turns out that skill really isn't a reliable predictor of someone's ability to govern a kingdom. He decides to hire expert advisors to guide him in his new job.

05

» By setting aside his preconceptions and pursuing evidence-based policies suggested by his cabinet, as well as being a good neighbour to that other country, Landau boosts social cohesion and economic growth. Five years later, Baljinya is thriving. Can we move there?

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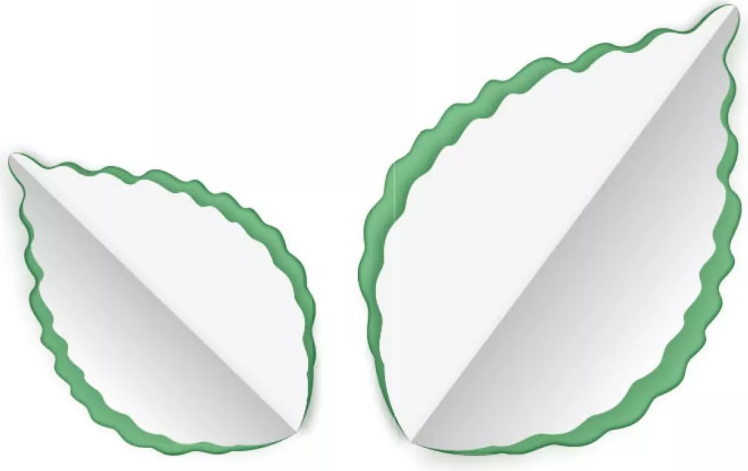

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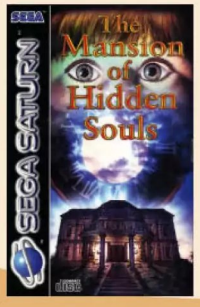

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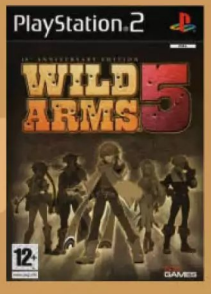

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